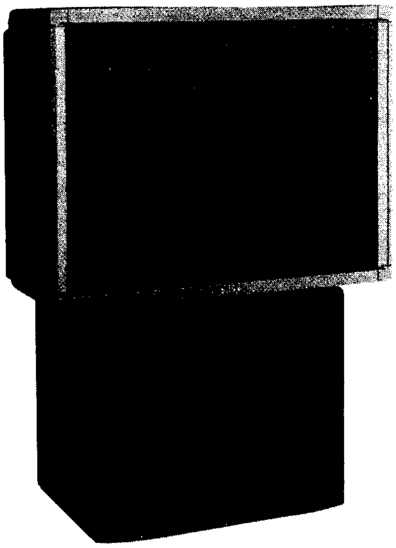
RVP-6010Q/6010QM
RM-1271

SERVICE MANUAL



US Model
Canadian Model
RVP-6010Q
Chassis No. SCC-D83D-A

AEP Model
RVP-6010QM
Chassis No. SCC-D82D-A

MODELS OF THE SAME SERIES	
RVP-6010Q/6010QM	VPH-1272Q
RVP-4010Q/4010QM	VPH-1252QM
VPH-1271Q	VPH-1271QM

SPECIFICATIONS

Optical

Projection system	3 Picture tubes, 3 lenses, Horizontal inline system, Rear projection type
Picture tube	7-inch high-brightness monochrome tubes, with coolant sealed
Projection lens	HACC (High-resolution Aspherical and Color Corrected) lenses F1.1/116 mm
Projected picture size	Factory-adjusted to 60 inches measured diagonally
Luminance	150 ft-L (white peak) 40 ft-L (all white)

General

Color system	PAL, SECAM, NTSC and NTSC4.43 systems, switched automatically
Resolution	700 TV lines (VIDEO input) 1,400×1,120 pixels (RGB input at f_H : 69 kHz, f_v : 60 Hz)
RGB inputs	Horizontal frequency : 15 kHz-93kHz Vertical frequency : 38 Hz-150 Hz
Test signal	Cross hair test pattern generator is incorporated.
Speaker	Total 10W + 10W

- Continued on next page -

MULTISCAN® REAR PROJECTOR

SONY®

Inputs	**VIDEO input**
	VIDEO IN
	Y/C : 4-pin mini DIN connector
	Y (luminance) signal : 1 Vp-p±2dB, sync negative, 75 ohms terminated
	C (chrominance) signal : burst 0.286 Vp-p±2dB, 75 ohms terminated (NTSC)
	0.3 Vp-p±2dB, 75 ohms terminated (PAL)
	VIDEO : BNC connector
	Composite video input, 1 Vp-p±2dB, sync negative, 75 ohms terminated
	AUDIO IN : phono jack
	0.5 Vrms, impedance : more than 47 k ohms
	RGB input
	R : BNC connector
	Red input, 0.7 Vp-p±2dB, 75 ohms terminated, positive
	G/G SYNC : BNC connector
	Green input, 0.7 Vp-p±2dB, 75 ohms terminated, positive
	Green with sync input, 1 Vp-p±2dB, 75 ohms terminated, positive
	B : BNC connector
	Blue input, 0.7 Vp-p±2dB, 75 ohms terminated, positive
	SYNC/HD : BNC connector
	Composite sync input, 0.3-8 Vp-p, 75 ohms terminated, positive/negative
	Horizontal sync input, 0.3-8 Vp-p, 75 ohms terminated, positive/negative
	VD : BNC connector
	Vertical sync input, 0.3-8 Vp-p, 75 ohms terminated, positive/negative
	AUDIO IN L (MONO)/R : phono jacks
	REMOTE 1 connector : 14-pin connector (see "Signal assignment")
	REMOTE 2 connector : 9-pin connector (see "Signal assignment")
	CONTROL S IN : minijack, 5 Vp-p
Outputs	VIDEO OUT : BNC connector
	Composite video input, 1 Vp-p±2dB, impedance 75 ohms, output video signal from the VIDEO IN connector
	CONTROL S OUT : minijack, 5 Vp-p
	AUDIO OUT : phono jacks Variable impedance : less than 2 k ohms
Power requirements	RVP-6010Q : 120 V AC, 50/60 Hz
	RVP-6010QM : 220-240 V AC, 50/60 Hz
Power consumption	570W max. (Video input)
	720W max. (RGB input)
Operating temperature	0-40 ° C (humidity 35% - 85%)
Storage temperature	-20-60 ° C (humidity 10% - 85%)
Dimensions	1,340×1,930×990 mm (w/h/d)
	(52 7/8×76×39 inches)
Mass	Approx. 200 kg (400 lb 15 oz)
Accessories supplied	Remote commander RM-1271 (1) with 3 R6 (AA) batteries
	Remote Commander cable (1)
	AC power cord (1)
	Serviceman board (1)

Design and specifications are subject to change without notice.

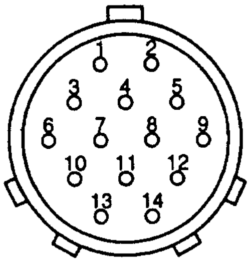
Optional accessories

Signal interface switcher	PC-1271/1271M
CCQ BRS cables	
Interface board	IFB-11 (5BNC, Analogue RGB) IFB-20 (9-pin, Analogue RGB) IFB-30 (9-pin, Digital RGB) IFB-1000 (Video, Y/C) IFB-1200 (3BNC, Component) IFB-1300 (3BNC, HD) IFB-101
Interface board	IFU-1271-1271M

Signal assignment

REMOTE 1 connector (14-pin)

Pin No.	Signal
1	GND
2	HD/Composite Sync
3	SIRCS
4	NC
5	GND (SIRCS)
6	B/C
7	GND (B/C)
8	GND (G/Y)
9	G/Y
10	RGB/Video
11	R/Composite Video
12	Composite Video/YC
13	AUDIO
14	VD


1
2
3
4
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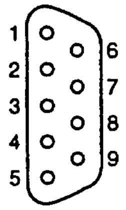
14

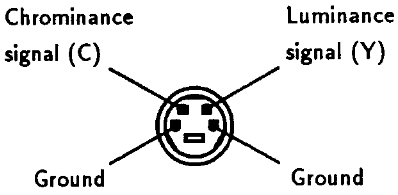
REMOTE 2 connector (D-sub 9-pin)

Pin No.	Signal
1	Frame Ground
2	$\overline{\text{Transmit A}}$
3	Receive B
4	Receive Common
5	Spare
6	Transmit Common
7	Transmit B
8	$\overline{\text{Receive A}}$
9	Frame Ground

RS-422 format



Y/C Connector (4-pin mini : DIN)


Chrominance signal (C)
Luminance signal (Y)
Ground
Ground

SAFETY CHECK-OUT

(US model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer :

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any). Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate;be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground;the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

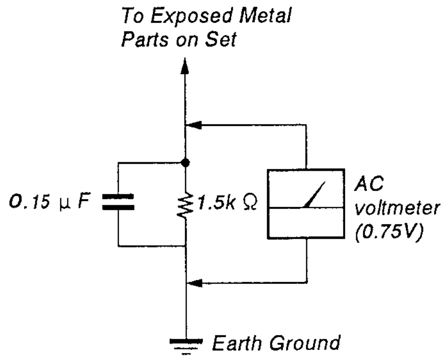


Fig. A. Using an AC voltmeter to check AC leakage.

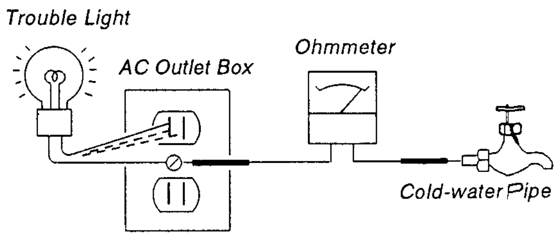


Fig B. Checking for earth ground.

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(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

(ATTENTION)

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURTCIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS ÁLA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MAPQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

SECTION 1
GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

Features

Multiscan projector

The projector accepts and detects automatically the horizontal scanning frequencies between 15 kHz - 93 kHz and the vertical scanning frequencies between 38 Hz - 150 Hz.
In addition to high-resolution pictures from computers, pictures from teletext decoders, VCRs, and video cameras can also be projected.

Bright image - luminance 150 ft-L

A newly-developed phosphor, large CRT, and improved high voltage circuitry provides super brightness.

Fine-detailed picture resolution - 1400 x 1120 dots

Sony HACC (High-resolution Aspherical and Color Corrected) lens contributes to picture sharpness and improved contrast. High quality picture with a resolution of 1400 x 1120 dots is obtained combining the use of an electron gun for a sharp picture, a colored coolant filter for efficient color reproduction, a lens for accurate focus in the corners as well as the screen center, and an anti-reflection coating to improve focus and contrast in the corners.

Wireless and wired remote control

All adjustments can be remotely controlled with the supplied Remote Commander. The Commander can also be connected to the projector with a cable and used as a wired Commander.

On-screen display

Adjustment instructions and indications such as picture and sound controls and guide and error messages can be displayed on the screen. The current setting of each control and input condition can also be displayed.

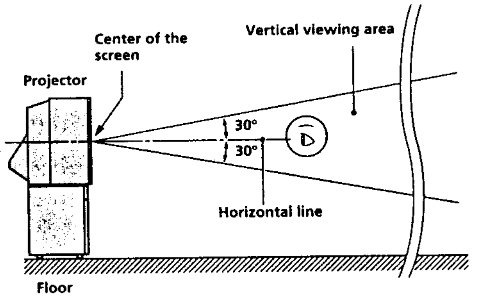
Other features

- **Four color systems available**
  One of PAL, SECAM, NTSC or NTSC4.43* color systems is selected automatically.
- **Illuminated Remote Commander and control panel**
  When the LIGHT button on the Remote Commander or control panel on the projector is pressed, the indications are illuminated for easy operation in dim or dark places.
- **Internal test signal**
  Centering adjustment can be performed easily by projecting the built-in cross-hair test signal. No external test signal is needed.

* A signal of NTSC4.43 system is obtained by playing back NTSC-recorded video tapes with a video tape recorder/player specially designed for use with this system.

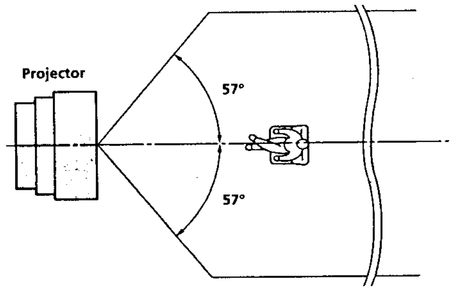
Viewing Area

Vertical viewing area



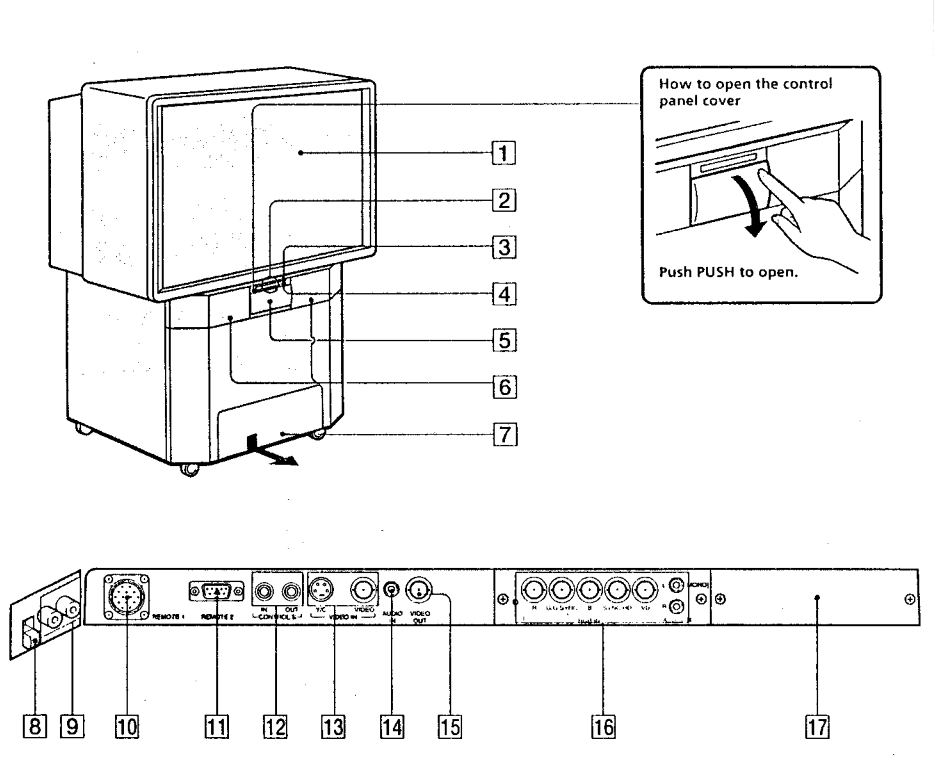
Margin of error: ±1%

Horizontal viewing area



Location and Function of Controls

Front



1 Screen

2 Remote control detector

3 POWER indicator
Green indicator is on when the power is turned on.

4 STANDBY indicator
When the MAIN POWER is on, the red light indicating standby will be on. When the red light is on, the projector can be controlled with the Remote Commander.

Note
When the MAIN POWER is turned off, there will be a slight delay before the red light goes off.

5 Control panel
The buttons inside the panel cover are the same as the Remote Commander.

6 Speaker

7 Connector cover
The location of the connector is indicated on the back.

8 SPEAKER switch
Set to ON to use the built-in speakers.
Set to OFF when you do not use the built-in speakers.

9 AUDIO OUT (VARIABLE) connectors
Connect to an audio amplifier. The output level can be adjusted with the VOL buttons of the supplied Remote Commander.

10 REMOTE 1 connector (14 pin)
Connect to REMOTE 1 connector of the optional switcher PC-1271/1271M.

11 REMOTE 2 connector (9 pin)
Connect RS-422 interface for interactive communication with the external equipment. Take off the red cap before use.

12 CONTROL S IN/OUT connectors
Connect to the CONTROL S connectors of other Sony equipment. It is then possible to control the whole system with a single Remote Commander.
CONTROL S IN: Connect to the CONTROL S OUT of the Remote Commander to be used as a wired commander.

13 VIDEO IN connectors
Y/C (4-pin):
Connect to the Y/C output of a VCR.
VIDEO (BNC type):
Connect to the video output of a video equipment.

Note
The VIDEO connector is disconnected automatically when a cable is connected to the Y/C connector.

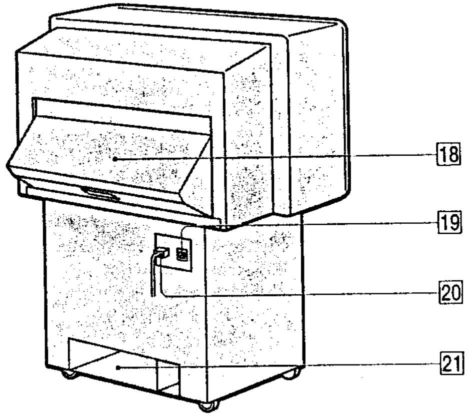
14 AUDIO IN jack (phono)
Connect to the audio output of video equipment.

15 VIDEO OUT connector (BNC type)
Loop-through output of the VIDEO connector. Connect to the video input of a VCR or another monitor. The signal input from Y/C connector is not output from this connector.

16 INPUT A connectors (BNC type)
R, G/G SYNC, B, SYNC/HD, VD connectors:
Connect to the RGB outputs of a computer or a video camera.

17 INPUT B connectors section
To expand the system connection, install the optional interface board IFB-11, 20, 30, 1000, 1200, 1300 or IFB-101.

Rear



18 **Mirror cover**
This can be aligned to the back of the cabinet for transportation.

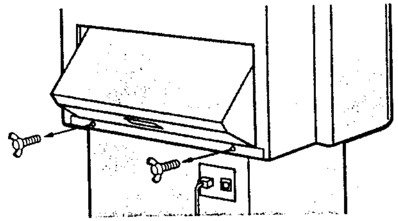
19 **MAIN POWER switch** (▬ ON/ ▮ OFF)

20 **AC IN socket**
Connect the supplied AC power cord (mains lead).

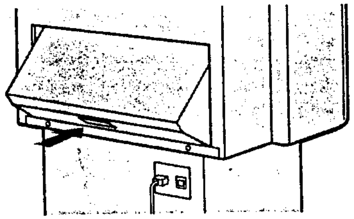
21 **Rack**

How to align the mirror cover to the back of the cabinet for transportation

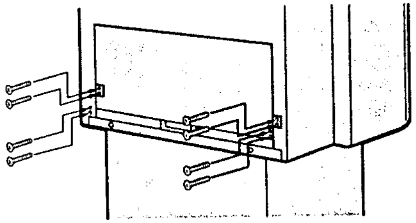
1 **Remove the wing screws.**



2 **Press the mirror cover into the cabinet until it clicks.**

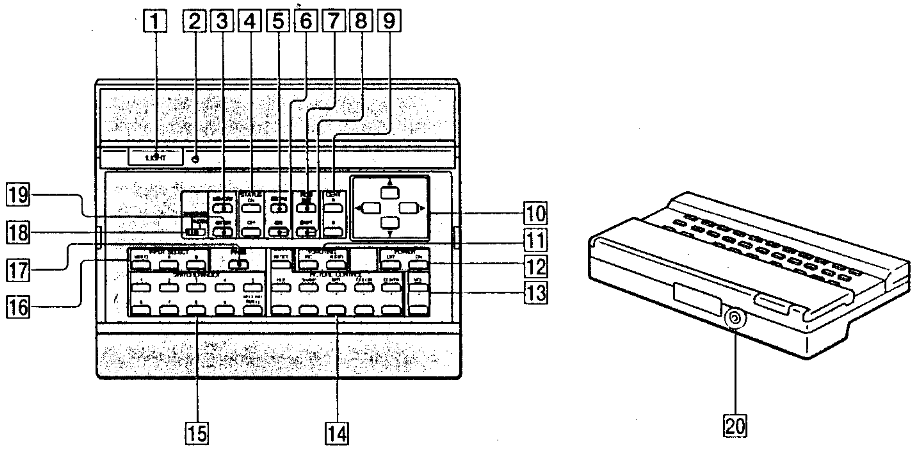


3 **Secure the mirror cover with the metal plate.**



After transportation, pull the mirror cover fully out and secure it with the wing screws.

Remote Commander RM-1271



1 **LIGHT button**
Press to light button indicators.
If the buttons are not operated within about 30 seconds, the light automatically goes out.

2 **Transmission indicator**
The light goes on each time a button is pressed. When the indicator does not light, replace the batteries.

3 **MEMORY button**
Press to store various adjustment data into memory.

4 **STATUS ON/OFF button**
Press **OFF** to eliminate the on-screen display.
Press **ON** to restore the on-screen display.
Note: The PAGE display appears even when the **OFF** button is pressed.

5 **SECAM button**
When SECAM signal is input to the projector and you cannot get normal color, press this button. Press again to switch over to the other standard system sources, NTSC or PAL.

6 **C.B. (clear blue) button**
Press to make the blue color clear in RGB mode. Press again to restore the normal condition.

7 **RGB SIZE button**
Press to adjust the size of the picture for the video and RGB signal inputs.
Press this button to enter the size adjustment mode.
The size adjustment is performed using the four arrow buttons.
◄ ... to reduce the horizontal size
► ... to expand the horizontal size
▲ ... to expand the vertical size
▼ ... to reduce the vertical size

8 **RGB SHIFT button**
Press to adjust the shift of the picture for the RGB signal input.
Press this button to enter the shift adjustment mode.
The shift adjustment of the picture is performed using the four arrow buttons. The picture shifts according to the direction of the arrow.
Note
This button does not function with the video signal input.

9 **CENT R/B buttons**
Press to enter the centering adjustment mode of the red and blue.
CENT R: Press to enter the red centering adjustment mode.
CENT B: Press to enter the blue centering adjustment mode.
Centering adjustments are performed using the four arrow buttons.
To return to the normal display, press the MEMORY button.

10 **Arrow buttons**
The buttons are used for various adjustment functions.

11 **PJ MUTING buttons**
PIC: Press to cut off the picture. To restore the picture, press it again or CONTR +.
AUDIO: Press to cut off the sound. To restore the sound, press it again or VOL +.

12 **POWER ON/OFF buttons**
Press to turn on and off the projector.

13 **VOL (volume) +/– buttons**
Press to adjust volume
+: to increase volume
–: to decrease volume

14 **PICTURE CONTROL buttons**
Press to adjust picture condition: hue, sharpness, brightness, color and contrast. Press RESET to restore the standard levels.

15 **SWITCHER/INDEX buttons**
When the SWITCHER/INDEX select switch is set to SWITCHER.
When the PC-1271/1271M switcher is connected, select the input from the switcher. The SECOND button is used when two switchers are connected. To select the input from the second switcher (when the switcher's SINGLE/SECOND/OTHER switch is set to SECOND), press the number buttons after pressing SECOND. Number button 9 does not operate.
When the SWITCHER/INDEX select switch is set to INDEX.
These buttons function when the IFB-101 interface board (not supplied) is attached and multiple projectors are connected. For details, refer to the instructions manual of the IFB-101.

16 **INPUT SELECT buttons**
Press to select the input signal.
VIDEO: to select the signal input from the VIDEO IN (Y/C or VIDEO) connectors
A: to select the signal input from the RGB IN connectors
B: to select the signal input from the connectors of B section (when the optional interface board is attached)

17 **PAGE button**
Press to display and switch the following four on-screen displays. (On PAGE 1, 2 and 3 adjustment can also be done.)
PAGE 1: Displays STATUS ON/OFF, PIC MUTING ON/OFF, AUDIO MUTING ON/OFF, CLEAR BLUE ON/OFF and SECAM ON/OFF.
PAGE 2: Displays the picture conditions; contrast, color, brightness, sharpness and hue, and volume level.
PAGE 3: Displays the color temperature level, clamp setting and vertical shift range.
PAGE 4: Displays the input signal conditions; fH, fV, H/C-sync, V-sync, Sync on Green and input signal and registration memory block assignment.

18 **SWITCHER/INDEX select switch**
Selects the SWITCHER/INDEX button function.
When using as the switcher input selector, set to SWITCHER.
When attaching the IFB-101 interface board (not supplied) on the control panel of the projector and controlling multiple projectors, set to INDEX.

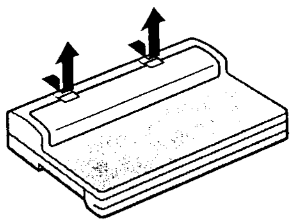
19 **ENTER button**
This button functions when the IFB-101 interface board(not supplied) is attached and multiple projectors are connected. For details, refer to the instructions manual of the IFB-101.

20 **CONTROL S OUT connector**
Connect the supplied remote control cable to this connector and to the CONTROL S IN connector of the projector for wired Commander application.

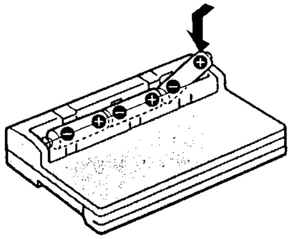
Location and Function of Controls

Battery installation

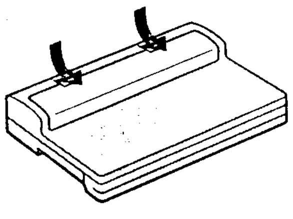
1 **Push to open the lid.**



2 **Install three AA (R6) batteries with the correct polarity.**

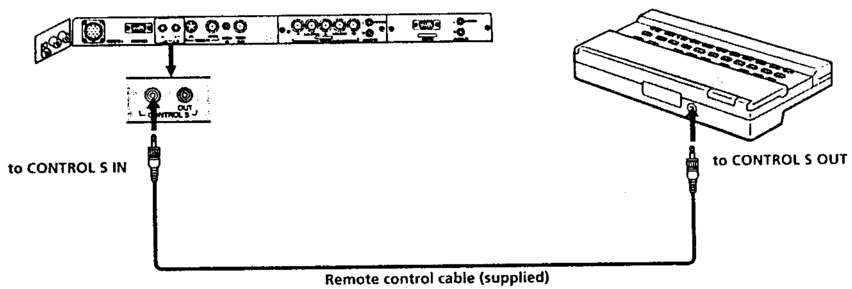


3 **Replace the lid.**



- If the projector does not operate properly, the batteries might be worn out. Replace all three of them with new batteries.
- The life of the batteries depends on frequency of usage and how often you use the LIGHT button. If they wear out quickly, replace them with new alkaline batteries.
- To avoid damage from possible battery leakage, remove the batteries when the Commander will not be used for a long time.
- Be sure that there are no obstructions between the Commander and the unit.
- Operable range is limited. The shorter the distance between the Commander and the projector, the wider the angle within which the Commander can control the projector.

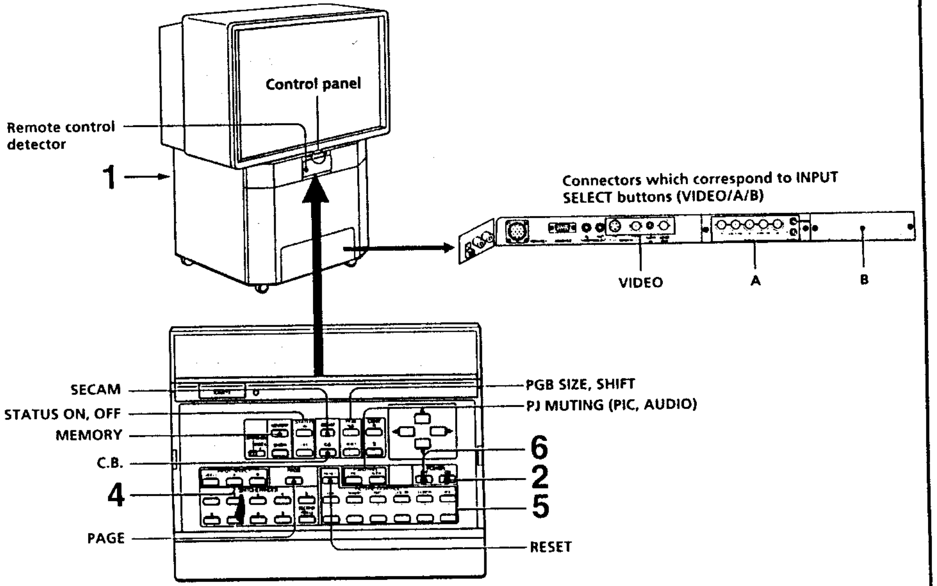
To connect the Remote Commander to the projector


to CONTROL S IN
to CONTROL S OUT
Remote control cable (supplied)

Note
When the above connection is made, the remote control detector of the projector does not function. For wireless operation, be sure to disconnect both plugs from the projector and the Commander.

Projecting

The buttons on the control panel of the projector are the same as those found on the Remote Commander.


Control panel
Remote control detector
1
Connectors which correspond to INPUT SELECT buttons (VIDEO/A/B)
VIDEO
A
B
SECAM
STATUS ON, OFF
MEMORY
C.B.
4
PAGE
PGB SIZE, SHIFT
PJ MUTING (PIC, AUDIO)
6
2
5
RESET

1 **Depress the MAIN POWER switch of the projector (▬ ON).**

2 **Turn on the power by pressing the POWER ON button on the Remote Commander or the control panel of the projector.**

3 **Turn on the connected equipment.**

4 **Select the input signal to be projected by pressing the INPUT SELECT button.**
VIDEO: to select the signal input from the VIDEO IN (Y/C or VIDEO) connectors
A: to select the signal input from the RGB IN connectors
B: to select the signal input from the connectors of "B" section (optional interface board)
When the PC-1271/1271M switcher is connected, set the SWITCHER/INDEX select switch to SWITCHER and then select the input with the SWITCHER/INDEX number buttons. If two switchers are connected, first press the SECOND button and then the number button.

5 **Adjust the picture and sound.**

6 **To turn off the power, press the POWER OFF button on the Remote Commander or the control panel of the projector, then press the MAIN POWER switch of the projector.**

Projecting

To cut the on-screen display

Press STATUS OFF button.
However, PAGE is displayed even when in OFF mode.
To restore the on-screen display, press STATUS ON button.

To cut off the sound or picture

To muting the sound
Press PJ MUTING AUDIO button. To restore the previous sound level, press PJ MUTING AUDIO button again or VOL + button.

To cut off the picture
Press PJ MUTING PIC button. To restore the previous brightness level, press PJ MUTING PIC button again or CONTR + button.

Notes on projecting a picture input from the VIDEO IN connectors

- You can adjust the size of the picture using the RGB SIZE and arrow buttons.
- The shift of the picture cannot be adjusted.

Notes on projecting a picture input from RGB IN connectors

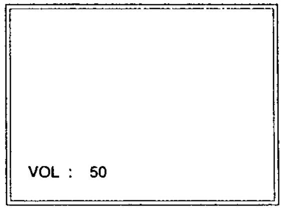
- To make the blue color clear, press C.B. button. Press again to restore the normal condition.
- If necessary, adjust the size and shift of the picture using the RGB SIZE/SHIFT and arrow buttons.

If the SECAM color source is incorrect

Press SECAM button. Press again to switch over to other standard system sources, NTSC or PAL.
If you wish to keep the C.B. ON/OFF or SECAM ON/OFF setting, store the data (see page 20).

Adjusting the Picture and Sound

Use the VOL and PICTURE CONTROL buttons on the Remote Commander.
The adjustment levels are digitally displayed on the screen having a range of MIN, 1, 2, ..., 98, 99, MAX.



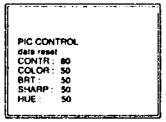
```
VOL : 50
```

VOL +/– buttons	+: to increase volume –: to decrease volume
CONTR +/– buttons	+: to increase picture contrast –: to decrease picture contrast
COLOR +/– buttons	+: to increase color intensity –: to decrease color intensity
BRT +/– buttons	+: to make the picture brighter –: to make the picture darker
SHARP +/– buttons	+: to make the picture sharper –: to make the picture softer
HUE +/– buttons	+: to make skin tones greenish –: to make skin tones purplish

- COLOR, SHARP and HUE controls do not function on the picture input from RGB IN.
- HUE control does not function with PAL or SECAM color source.

To restore the factory preset levels

Press RESET button. The factory preset levels will be displayed on the screen.



```
PIC CONTROL
data reset
CONTR :  80
COLOR :  50
BRT :    50
SHARP :  50
HUE :    50
```

To Display the Current Control Settings and Conditions

Press the PAGE button for displaying the following four on-screen displays. Adjustment can also be done on PAGE 1, 2 and 3. The displays will switch as follows every time the PAGE button is pressed.

PAGE 1 → PAGE 2 → PAGE 3 → PAGE 4
↑ Original screen ←

PAGE 1

```
PAGE 1                    INPUT-A
  USER PRESET
STATUS :           ON
PIC MUTING :       OFF
AUDIO MUTING :     OFF
CLEAR BLUE :       OFF
SECAM :            ---



             NEXT :    [PAGE]
```

STATUS: ON/OFF The setting is stored even if the power is turned off. When on-screen display does not appear, check if STATUS ON is displayed.

PIC MUTING: ON/OFF Whenever the power is turned on, PIC MUTING is set to OFF. When sound is heard but no picture is displayed, check if PIC MUTING is set to ON.

AUDIO MUTING: ON/OFF Whenever the power is turned on, AUDIO MUTING is set to OFF. When the picture is seen but no sound is heard, check if AUDIO MUTING is set to ON.

CLEAR BLUE: ON/OFF The setting can be changed for each input signal which differs in any of the items indicated in PAGE 4.

SECAM: ON/OFF When the PAL color signal is projected with this item set to ON, the picture is displayed in black and white.
Make sure to set to OFF when the SECAM color source is not connected.

"---" indicates that the control does not function with the current input signal.
To change the settings, adjust with the appropriate button.

PAGE 2

```
PAGE 2                 INPUT-A
  USER CONTROL
CONTR :   80
COLOR :   --
BRT :     50
SHARP :   --
HUE :     --
VOL :     50


            NEXT :    [PAGE]
```

The picture conditions; contrast, color, brightness, sharpness, hue and volume level are displayed. The levels can be changed independently for the signal input from different input connectors. (You can check the input connector from the message displayed in the upper right corner of the screen).
"--" indicates that the control does not function with the current input signal. (In this case, the input signal is RGB.) To change the levels, adjust with the VOL and PICTURE CONTROL buttons.

PAGE 3

```
PAGE 3                     INPUT-A
  SYSTEM PRESET
COLOR TEMPERATURE :
  9300   6500   3200   PRESET
CLAMP :  AUTO  SonG  H/C  H.P
V-SHIFT :  WIDE      NARROW



                SELECT : ◀▶▲▼
                NEXT :     [PAGE]
```

The color temperature, clamp and vertical-shift adjustment range settings are displayed.
The selected item blinks in green.
To change the setting, adjust by pressing ◀, ▶, ▲ and ▼ buttons.

COLOR TEMPERATURE: 9300/6500/3200/PRESET
Normally, set to "6500". If you want to make white color bluish, set to 9300, and if you want to make white color reddish, set to 3200.

V-SHIFT: WIDE/NARROW
Normally set to WIDE. When some particular RGB signal sources are connected, the picture may be distorted vertically. In such case, set to NARROW. Adjustable range in the lower direction will be narrow.

For details of the clamp setting, see "If the luminance of the picture is incorrect-clamp setting" on page 21.
If you wish to keep the current setting, press the MEMORY button (see page 20).

Note
"CLAMP" and "V-SHIFT" are not displayed when the input mode is VIDEO.

PAGE 4

```
PAGE 4                      INPUT-A
  INPUT INFO
fH :  31.5kHz
fV :  60.0Hz
H/C-SYNC :          POS
V-SYNC :            POS
SYNC ON G :         NEG
INPUT SIGNAL : RGB
REGI BLOCK :    NO.3
               NEXT :      [PAGE]
```

The signal input conditions are displayed.

fH: The horizontal frequency of the input signal
fV: The vertical frequency of the input signal

H/C-SYNC: The polarity of the H/C-SYNC
V-SYNC: The polarity of the V-SYNC
SYNC ON G: The polarity of the SYNC on the Green

POS: positive
NEG: negative
- - -: no input

When POS (NEG) is displayed in green:
The picture is being projected using its sync signal.
When POS (NEG) is displayed in white:
The picture is being projected without using its sync signal.

INPUT SIGNAL: The current input signal.

Y/C:	S video input signal from VIDEO IN
RGB:	RGB input signal
NTSC:	NTSC input signal from VIDEO IN
PAL:	PAL input signal from VIDEO IN
B&W:	Black and white input signal from VIDEO IN
- - -:	Internal oscillation mode (No signal is input.)

REGI BLOCK: The registration memory block number in which the input signal is assigned.

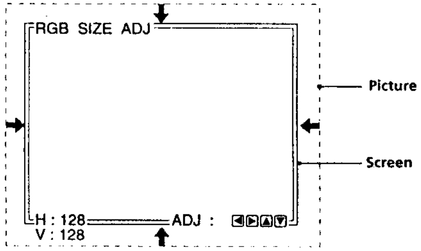
Adjusting the Size And Shift of the Picture

If necessary, adjust the size and shift of the picture using the RGB SIZE/SHIFT and arrow buttons.
You can also adjust the size of the picture input from the VIDEO IN connectors using the RGB SIZE and arrow buttons.
The SHIFT of the video input signal cannot be adjusted.

If you wish to keep the current adjustment setting, press the MEMORY button. (See page 20.)
When the setting is saved in the memory, the display disappears.

RGB/VIDEO SIZE adjustment

If size of the picture does not fit the screen, adjust RGB SIZE.
In this case the RGB signal is input.



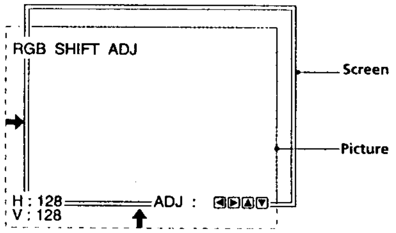
1 **Press RGB SIZE button.**

2 **Adjust by pressing arrow buttons so that the picture fits the screen.**

◀ to reduce horizontal size
▶ to expand horizontal size
▲ to expand vertical size
▼ to reduce vertical size

RGB SHIFT adjustment

If the picture needs to be shifted to fit the screen, adjust RGB SHIFT.



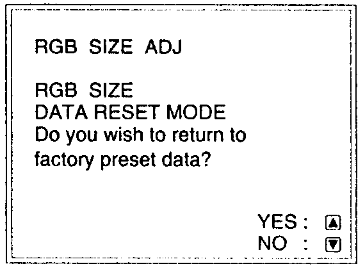
1 **Press RGB SHIFT button.**

2 **Adjust by pressing arrow buttons so that the picture fits the screen.**
The picture shifts according to the direction of the arrow.

Resetting SIZE/SHIFT to factory preset condition

1 **Press RGB SIZE or SHIFT button.**

2 **Press ◀ and ▶ buttons simultaneously.**
The following on-screen display appears on the screen.

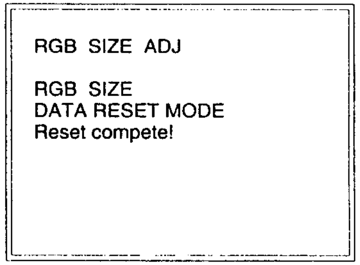


RGB SIZE ADJ

RGB SIZE
DATA RESET MODE
Do you wish to return to
factory preset data?

YES : ▲
NO : ▼

3 **Press ▲ button.**
The following on-screen display appears on the screen to confirm that resetting was completed.
To keep the current setting instead of resetting, press ▼ button.



RGB SIZE ADJ

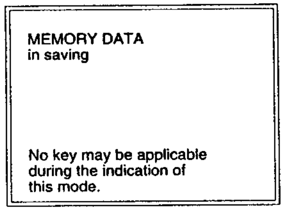
RGB SIZE
DATA RESET MODE
Reset compete!

To Store the Adjustment Levels

If you wish to save the picture adjustment changes, you must store them in memory.
The following conditions can be stored:

SECAM ON/OFF setting
CLEAR BLUE (C.B.) ON/OFF setting
COLOR TEMPERATURE setting on PAGE 3
RGB SIZE/SHIFT adjustment levels

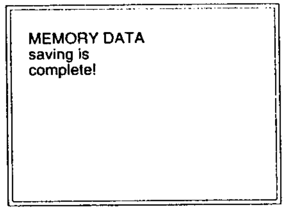
1 **After the adjustment, press MEMORY button.**
The following on-screen display appears to indicate that storing has begun. While the display is on, no other button will function.



MEMORY DATA
in saving

No key may be applicable
during the indication of
this mode.

2 **The following on-screen display appears to confirm that storing has been completed.**



MEMORY DATA
saving is
complete!

Messages on the Screen

The meaning of the color
Four colors are used in the letters of on-screen display.

Color	Meaning
Green	Function and condition, item being selected on PAGE display
Cyan	Operation guide and messages
Yellow	Caution and error messages
White	Item being adjusted, item not being selected on PAGE display

Error message
When you perform an error in operation, the following messages will be displayed.

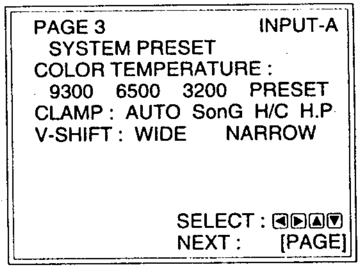
Messages	Meaning
Not applicable!	The control does not function with the current input.
PIC MUTING	PIC MUTING is set to ON. If you want to adjust the picture controls, press PJ MUTING PIC button to cancel the PIC MUTING mode.
Overflow!	RGB SIZE/SHIFT and CENT R/B adjustment range limit has been reached.
OFF	STATUS is set to OFF to cut the on-screen display. To restore the on-screen display, press STATUS ON button.

If the Luminance of the Picture is Incorrect—Clamp Setting

Clamp is used as a standard for setting the black level of the picture correctly. The standard position of the clamp depends on the kind of the sync signal. Normally, the CPU judges the signal and sets the clamp position automatically. However, the CPU may misjudge the signal because of noise.

If the luminance of the picture seems to be incorrect, (too dark, the black color is too light, or the luminance is unstable) the clamp position may need to be changed. In such case, change the clamp position following the procedure below.

1 **Press the PAGE button 3 times.**



```
PAGE 3                       INPUT-A
  SYSTEM PRESET
COLOR TEMPERATURE :
  9300   6500   3200   PRESET
CLAMP : AUTO  SonG  H/C  H.P
V-SHIFT : WIDE      NARROW

                   SELECT : ◀▶▲▼
                   NEXT :    [PAGE]
```

2 **Select the clamp position by pressing the ◀, ▶, ▲ and ▼ buttons.**

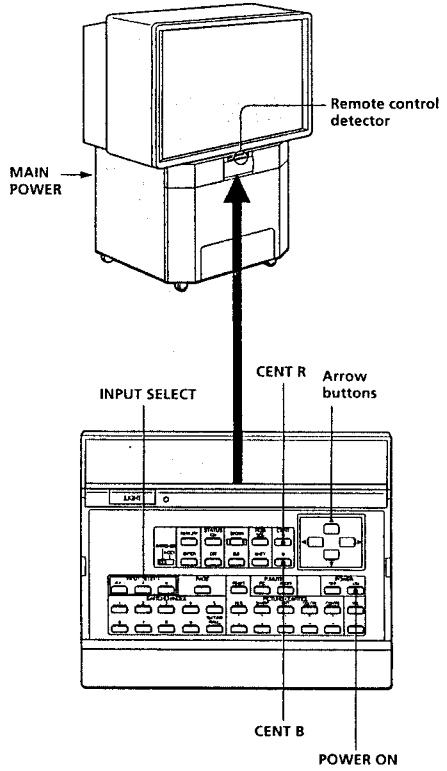
AUTO: Automatic setting mode. Normally, set to this position.
S on G: If the black color is too light or seems to be green, set to this position.
H/C: If the picture is too dark or the luminance is unstable, set to this position.
H.P: If the luminance is still incorrect after changing the clamp setting to "S on G" or "H/C", set to this position and perform H-SHIFT adjustment.

3 **Press the MEMORY button to store the data.**

If the luminance is still incorrect after changing the clamp setting
There may be a problem with the input signal or connection.
Check the input signal.

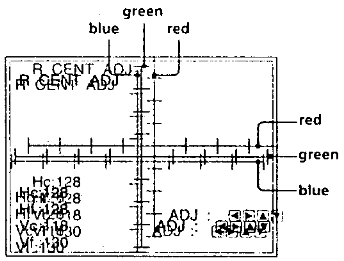
Centering Adjustment

The three colors red, green and blue must converge for proper projection. If they do not converge, centering adjustment is necessary.

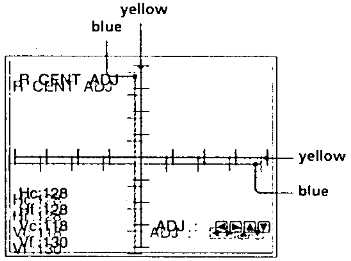

Remote control detector
MAIN POWER
INPUT SELECT
CENT R
Arrow buttons
CENT B
POWER ON

1 **Press the MAIN POWER switch of the projector and press the POWER ON button of the Remote Commander.**

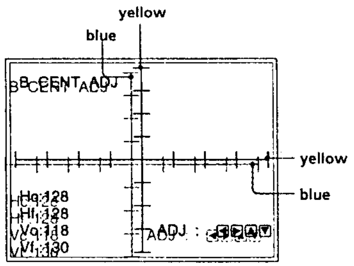
2 **Press the CENT R button.**
The built-in cross hair test pattern will be displayed and the red line will be operable.


green
blue
red
R CENT ADJ
red
green
blue
Hc:128
Hf:128
Vc:118
Vf:130
ADJ :

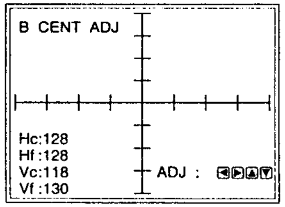
3 **Press the arrow buttons to move the red line until the red and green lines converge and are seen as yellow.**
The red line will move according to the direction of the arrow.


yellow
blue
R CENT ADJ
yellow
blue
Hc:128
Hf:128
Vc:118
Vf:130
ADJ :

4 **Press the CENT B button.**
The blue line will be operable.


yellow
blue
B CENT ADJ
yellow
blue
Hc:128
Hf:128
Vc:118
Vf:130
ADJ :

5 **Press the arrow buttons to move the blue line until the blue and yellow lines converge.**
When all three color lines converge, the test pattern will be seen as white.


B CENT ADJ
Hc:128
Hf:128
Vc:118
Vf:130
ADJ :

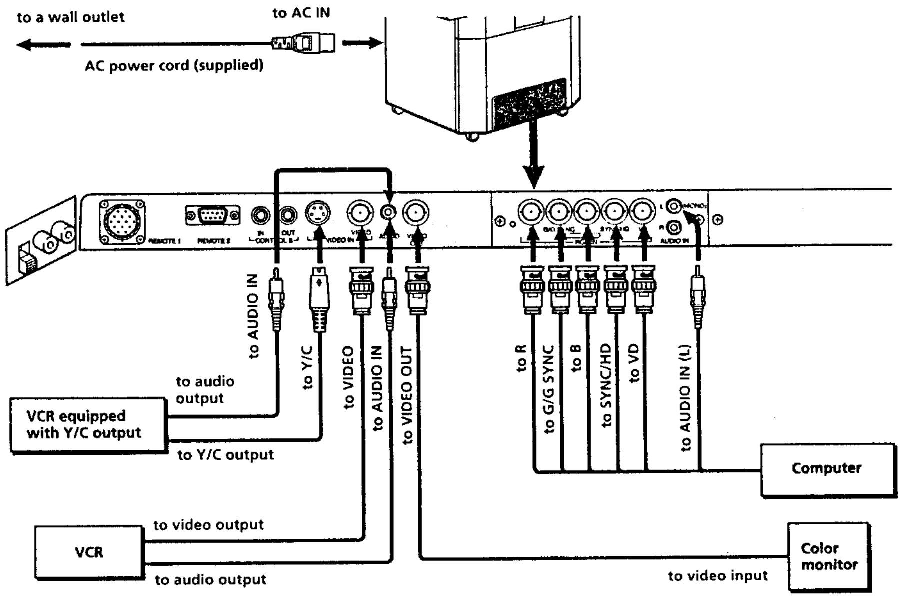
6 **Press the MEMORY button.**
The normal display is restored.

System Connections

Notes on connection

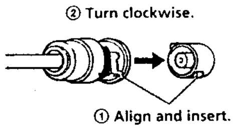
- First make sure that the power to each piece of equipment is turned off.
- Use connecting cables suitable for the equipment to be connected.
- The cable connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.
- To disconnect the cable, pull it out by grasping the plug. Never pull the cable itself.
- For connection to the REMOTE 1 connector, the connecting cable may be extended to maximum 50 m for VIDEO input and 25 m for RGB input. If the connecting cable is longer than that, picture quality may be impaired somewhat. To extend the connecting cable for RGB input longer than 25 m, please consult the qualified Sony personnel.
- Read the instruction manual of the equipment to be connected.

Connecting to the Projector Directly


to a wall outlet
to AC IN
AC power cord (supplied)
to AUDIO IN
to Y/C
to VIDEO
to AUDIO IN
to VIDEO OUT
to R
to G/G SYNC
to B
to SYNC/HD
to VD
to AUDIO IN (L)
to audio output
VCR equipped with Y/C output
to Y/C output
Computer
VCR
to video output
to audio output
Color monitor
to video input

Notes

- The VIDEO connector is disconnected automatically when a cable is connected to the Y/C connector.
- The external sync signal has priority over the internal sync signal. However, when the external sync signal is incomplete, the internal sync signal has priority.


② Turn clockwise.
① Align and insert.

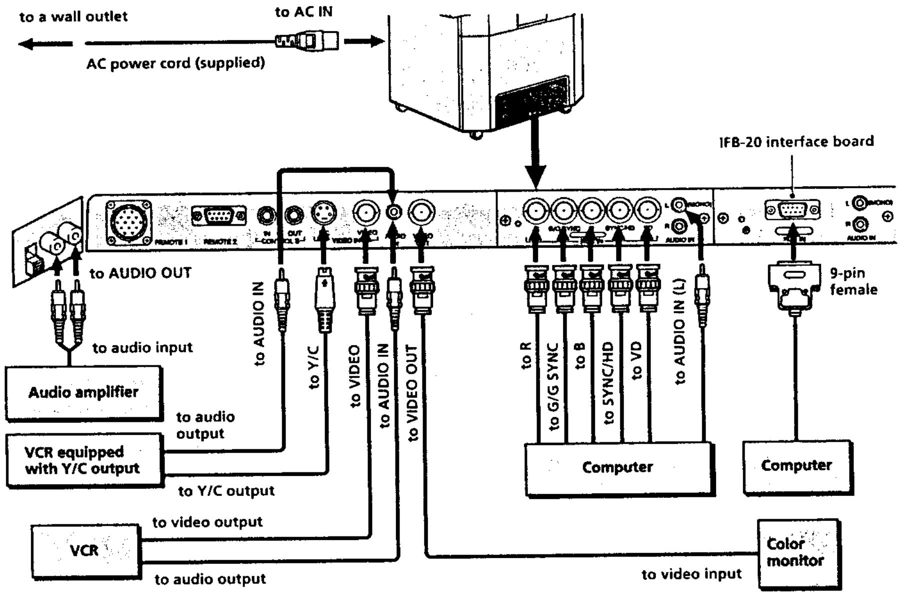
Notes

- Do not leave a still picture from a computer or video disc player projected for more than one hour.
- Depending on the computer, the dimensions of the character display area may change or the picture may be uncentered. This is not a fault of the projector.
- If your computer is equipped with a composite video output, connect it to the VIDEO IN VIDEO connector of the projector.
- If necessary, adjust the size and shift of the picture using RGB SIZE/SHIFT and arrow buttons (see page 18).

Using the Interface Board

Use the optional interface board IFB-11, 20, 30, 1000, 1200 or 1300 to expand the system connections.

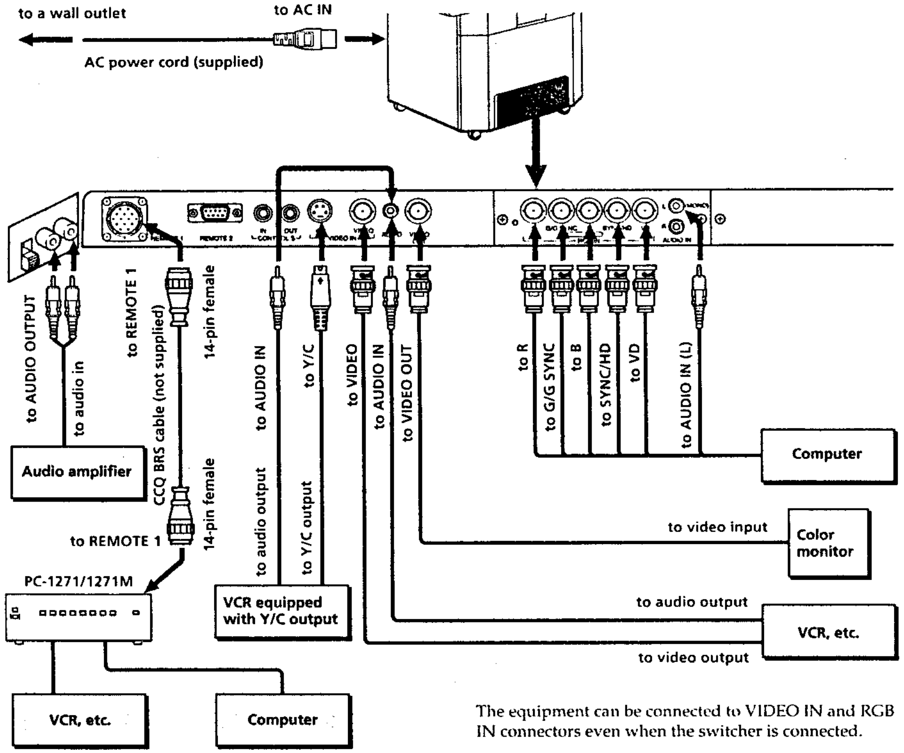
Example: Using the IFB-20 interface board


to a wall outlet
to AC IN
AC power cord (supplied)
IFB-20 interface board
to AUDIO OUT
to audio input
Audio amplifier
to audio output
VCR equipped with Y/C output
to Y/C output
VCR
to video output
to audio output
to AUDIO IN
to Y/C
to VIDEO
to AUDIO IN
to VIDEO OUT
to R
to G/G SYNC
to B
to SYNC/HD
to VD
to AUDIO IN (L)
Computer
9-pin female
Computer
Color monitor
to video input

For installing the interface board, consult the qualified Sony personnel.

Using the Switcher

Use the optional switcher PC-1271/1271M for connecting various video equipment. The input is selected by pressing the SWITCHER buttons on the Remote Commander.


to a wall outlet
to AC IN
AC power cord (supplied)
to AUDIO OUTPUT
to audio in
Audio amplifier
to REMOTE 1
CCQ BRS cable (not supplied)
14-pin female
14-pin female
to REMOTE 1
PC-1271/1271M
VCR, etc.
Computer
to AUDIO IN
to audio output
to Y/C
to Y/C output
VCR equipped with Y/C output
to VIDEO
to AUDIO IN
to VIDEO OUT
to R
to G/G SYNC
to B
to SYNC/HD
to VD
to AUDIO IN (L)
Computer
to video input
Color monitor
to audio output
VCR, etc.
to video output

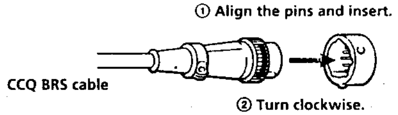
The equipment can be connected to VIDEO IN and RGB IN connectors even when the switcher is connected.

Using the SWITCHER buttons on the Remote Commander or the SWITCHER buttons on the control panel

When operating with the Remote Commander, set the SWITCHER/INDEX select switch to SWITCHER.
Press the number button from 1 to 8 to select the input number of the switcher. SECOND button is used when there are two switchers.

To control the second switcher (SINGLE/SECOND/REMOTE switch is set to SECOND), first press SECOND button and then the number button.

14-pin connector

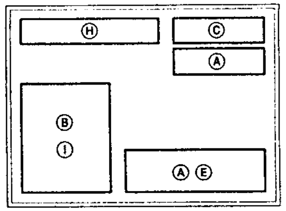

CCQ BRS cable

① Align the pins and insert.

② Turn clockwise.

List of the Messages

Use the list below to check the meaning of the messages displayed on the screen.
The list is divided into sections according to the location where the message appears. Check the location first, then refer to the corresponding letter for the section to find the message.



Ⓓ, Ⓕ, Ⓖ and Ⓙ will appear all over the screen.

A Caution, message

• Not applicable!	• The button cannot be used in the current mode.
• Overflow!	• The adjustment data has passed the adjustable range limit, and does not change any more.
• PIC MUTING	• Picture muting mode is on.
• Input is not VIDEO.	• The input signal is not VIDEO.
• Input is not NTSC.	• The input signal is not NTSC.
• Input is not RGB.	• The input signal is not RGB.
• Input is B&W.	• The input signal is black and white.
• NO INPUT	• No signal is input.
• OFF	• STATUS is set to OFF.

B PIC CONTROL data

• CONTR (CONTRAST)	• Contrast
• COLOR	• Color
• BRT (BRIGHTNESS)	• Brightness
• SHARP (SHARPNESS)	• Sharpness
• HUE	• Hue
• PIC CONTROL data reset	• Resets the PIC CONTROL data.

C Input channel

• VIDEO	• Input from VIDEO IN.
• INPUT-A	• Input from RGB IN.
• INPUT-B	• Input from optional interface board.
• SW'ER x-y (switcher x=1-2, y=1-8)	• Input from optional switcher.

List of the Messages

D PAGE

Subtitle	
• USER PRESET	• User preset
• USER CONTROL	• User control
• SYSTEM PRESET	• System preset
• INPUT INFO (INPUT INFORMATION)	• Input information
PAGE 1	
• STATUS ON/OFF	• On-screen display on/off
• PIC MUTING ON/OFF	• Picture muting mode on/off
• AUDIO MUTING ON/OFF	• Audio muting mode on/off
• CLEAR BLUE ON/OFF/---	• Clear blue mode on/off/does not function
• SECAM ON/OFF/---	• Compulsive SECAM mode on/off/does not function
PAGE 2	
• CONTR (CONTRAST)	• Contrast
• COLOR	• Color
• BRT (BRIGHTNESS)	• Brightness
• SHARP (SHARPNESS)	• Sharpness
• HUE	• Hue
• VOL	• Volume
• PIC CONTROL data reset	• Resets the PIC CONTROL data.
PAGE 3	
• COLOR TEMPERATURE: 9300/6500/3200/PRESET	• Color temperature is set to 9300/6500/3200/the data adjustable by the service personnel
• CLAMP: AUTO/S on G/ H/C /H.P	• Clamp position is set to automatic/internal/external sync signal/horizontal deflection pulse position.
• V-SHIFT: WIDE/NARROW	• The adjustable range of the vertical shift is wide/narrow.
PAGE 4	
• INPUT SIGNAL	• Input signal
• Y/C	• S video input signal from VIDEO IN
• RGB	• RGB input signal
• NTSC	• NTSC input signal from VIDEO IN
• PAL	• PAL input signal from VIDEO IN
• SECAM	• SECAM input signal from VIDEO IN
• B&W	• Black and white input signal from VIDEO IN
• fH	• Horizontal frequency
• fV	• Vertical frequency
• - - -	• Internal oscillation mode (No signal is input.)

D PAGE

PAGE 4	
• H/C-SYNC	• Horizontal sync signal or composite sync signal
• V-SYNC	• Vertical sync signal
• SYNC ON G	• Composite video signal
• H/C-SYNC: POS/NEG/---	• The polarity of the H/C-SYNC is positive/negative/not input.
• V-SYNC: POS/NEG/---	• The polarity of the V-SYNC is positive/negative/not input.
• SYNC ON G: NEG/---	• The polarity of the SYNC ON G is negative/not input.
• REGI BLOCK: NO. x	• The input signal is grouped into the registration memory block No. x.

E Operation

• YES: ▲	• Press ▲ button for "Yes".
• NO: ▼	• Press ▼ button for "No".
• SELECT: ◀ ▶	• Press ◀ or ▶ button to select.
• SELECT: ◀ ▶▲▼	• Press ◀ , ▶, ▲ or ▼ button to select.
• ADJ: ◀ ▶▲▼	• Press ◀ , ▶, ▲ or ▼ button to adjust.
• ADJ: ◀ ▶	• Press ◀ or ▶ button to adjust.
• ADJ: ▲▼	• Press ▲ or ▼ button to adjust.
• NEXT: [PAGE]	• Press PAGE button to change to the next page.
• EXIT: [PAGE]	• Press PAGE button to exit the PAGE mode.

F Memory data

• MEMORY DATA in saving.	• Saving the memory data now.
• MEMORY DATA saving is complete!	• Saving the memory data is completed.
• No key may be applicable during the indication of this mode.	• When in this mode (MEMORY DATA saving), no button functions.

G Data reset

• Do you wish to return to factory preset data?	• Do you wish to reset the data to the factory preset data?
• Reset complete!	• Resetting is completed.
• RGB SIZE DATA RESET MODE	• RGB or video input size data resetting mode
• RGB SHIFT DATA RESET MODE	• RGB input shift data resetting mode

H Adjustment

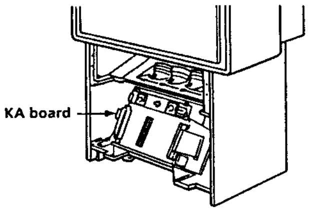
• RGB SIZE ADJ	• RGB or video input size adjustment mode
• RGB SHIFT ADJ	• RGB input shift adjustment mode
• R CENT ADJ	• Red centering adjustment mode
• B CENT ADJ	• Blue centering adjustment mode

List of the Messages

I Adjustment data	
• H: xxx	• Horizontal adjustment level (xxx=0-255)
• V: xxx	• Vertical adjustment level (xxx=0-255)
• Hf: xxx	• Centering adjustment level for horizontal direction (xxx=0-255) The level changes with the arrow buttons pressed once.
• Hc: xxx	• Centering adjustment level for horizontal direction (xxx=0-255) The level changes with the arrow buttons kept pressed.
• Vf: xxx	• Centering adjustment level for vertical direction (xxx=0-255) The level changes with the arrow buttons pressed once.
• Vc: xxx	• Centering adjustment level for vertical direction (xxx=0-255) The level changes with the arrow buttons kept pressed.
J Others	
• For optimum performance, white screen will remain for 20 min. For immediate use, push [PAGE] key.	• For optimum performance, white screen will remain for 20 min. For immediate use, push [PAGE] button.

About the error codes

When an operational error occurs, the power will automatically turn off and the error code will light up on the KA board. Refer to the chart below for the meanings.

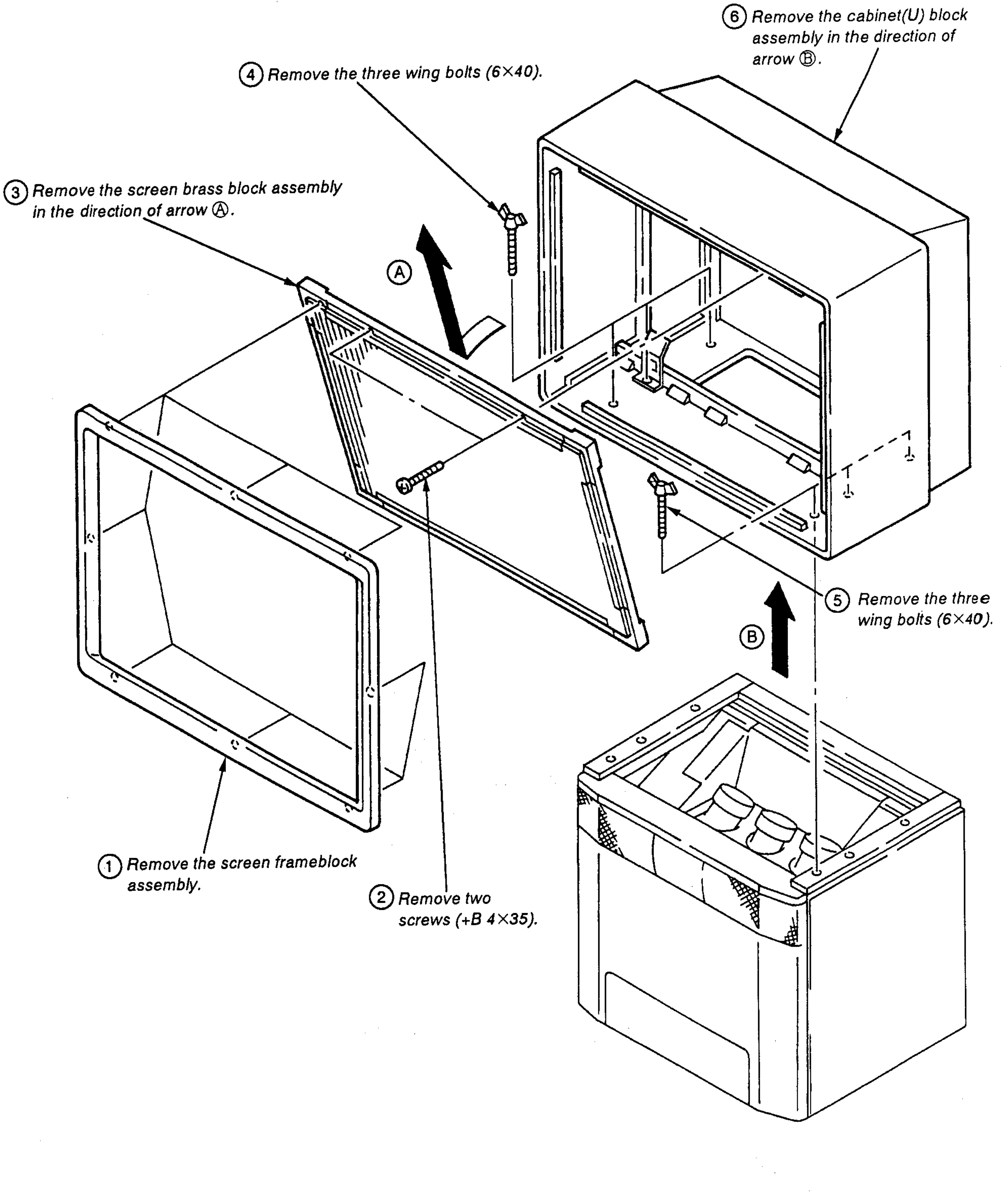


Code \ Error	FAN stop	100V down	IK-over	V-stop	HV-over	power-down
01 ……	•	—	—	—	—	—
02 ……	—	•	—	—	—	—
03 ……	•	•	—	—	—	—
04 ……	—	—	•	—	—	—
05 ……	•	—	•	—	—	—
06 ……	—	•	•	—	—	—
07 ……	•	•	•	—	—	—
08 ……	—	—	—	•	—	—
09 ……	•	—	—	•	—	—
0A ……	—	•	—	•	—	—
0b ……	•	•	—	•	—	—
0C ……	—	—	•	•	—	—
0d ……	•	—	•	•	—	—
0E ……	—	•	•	•	—	—
0_ ……	•	•	•	•	—	—
10 ……	—	—	—	—	•	—
11 ……	•	—	—	—	•	—
12 ……	—	•	—	—	•	—
13 ……	•	•	—	—	•	—
14 ……	—	—	•	—	•	—
15 ……	•	—	•	—	•	—
16 ……	—	•	•	—	•	—
17 ……	•	•	•	—	•	—
18 ……	—	—	—	•	•	—
19 ……	•	—	—	•	•	—
1A ……	—	•	—	•	•	—
1b ……	•	•	—	•	•	—
1C ……	—	—	•	•	•	—
1d ……	•	—	•	•	•	—
1E ……	—	•	•	•	•	—
1_ ……	•	•	•	•	•	—
20 ……	—	—	—	—	—	•

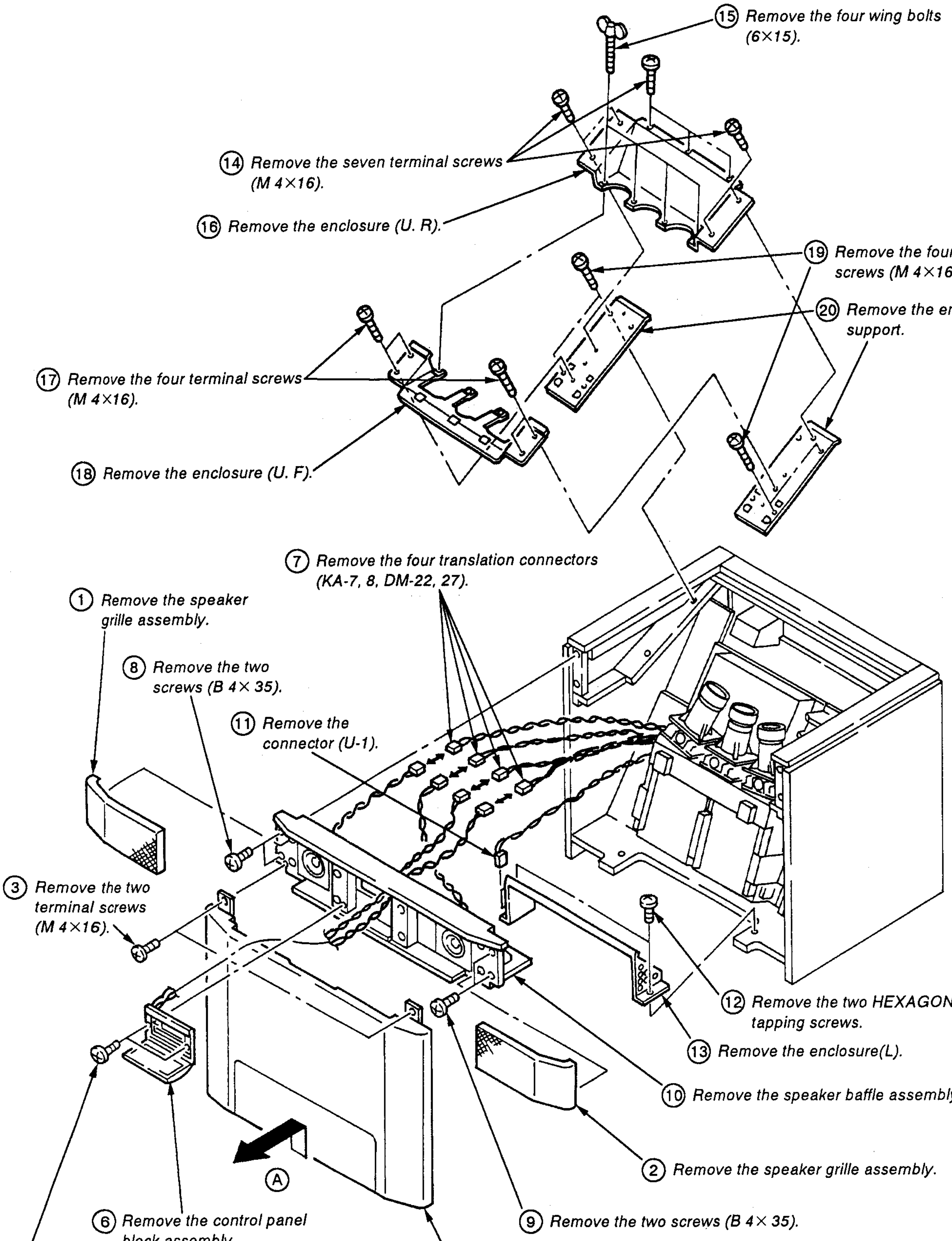
Notes
- When the error code lights up, all the previous adjustment data will be cleared.
- The error code will disappear when the MAIN POWER is turned off and the power cord is pulled out.
- The error code will light up every time the power is turned on unless the operational error is recovered to normal.

SECTION 2
DISASSEMBLY

2-1. REMOVE THE CABINET(U) BLOCK ASSEMBLY


⑥ Remove the cabinet(U) block assembly in the direction of arrow Ⓑ.
④ Remove the three wing bolts (6×40).
③ Remove the screen brass block assembly in the direction of arrow Ⓐ.
Ⓐ
⑤ Remove the three wing bolts (6×40).
Ⓑ
① Remove the screen frameblock assembly.
② Remove two screws (+B 4×35).

2-2. REMOVE THE FRONT COVER AND ENCLOSURE



① *Remove the speaker grille assembly.*

② *Remove the speaker grille assembly.*

③ *Remove the two terminal screws (M 4×16).*

④ *Remove the front cover assembly in the direction of arrow Ⓐ.*

⑤ *Remove the two screws (B 4×40).*

⑥ *Remove the control panel block assembly.*

⑦ *Remove the four translation connectors (KA-7, 8, DM-22, 27).*

⑧ *Remove the two screws (B 4× 35).*

⑨ *Remove the two screws (B 4× 35).*

⑩ *Remove the speaker baffle assembly.*

⑪ *Remove the connector (U-1).*

⑫ *Remove the two HEXAGON HEAD tapping screws.*

⑬ *Remove the enclosure(L).*

⑭ *Remove the seven terminal screws (M 4×16).*

⑮ *Remove the four wing bolts (6×15).*

⑯ *Remove the enclosure (U. R).*

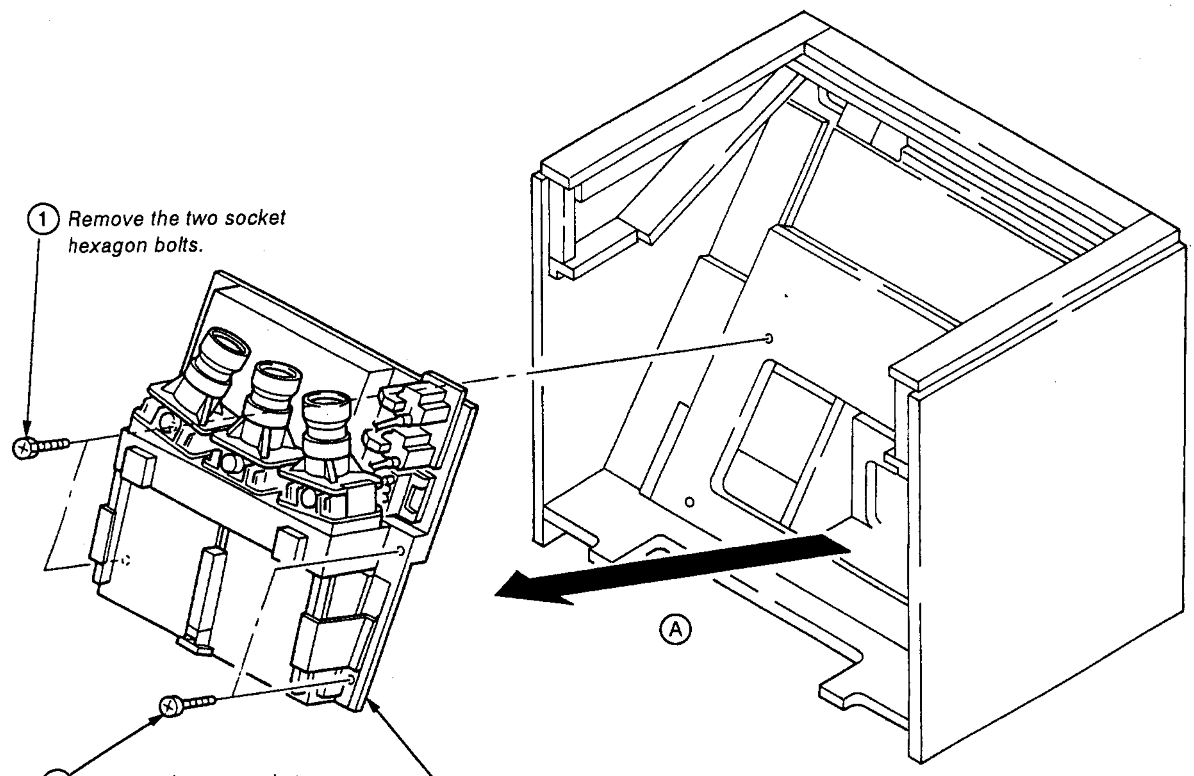
⑰ *Remove the four terminal screws (M 4×16).*

⑱ *Remove the enclosure (U. F).*

⑲ *Remove the four terminal screws (M 4×16).*

⑳ *Remove the enclosure support.*

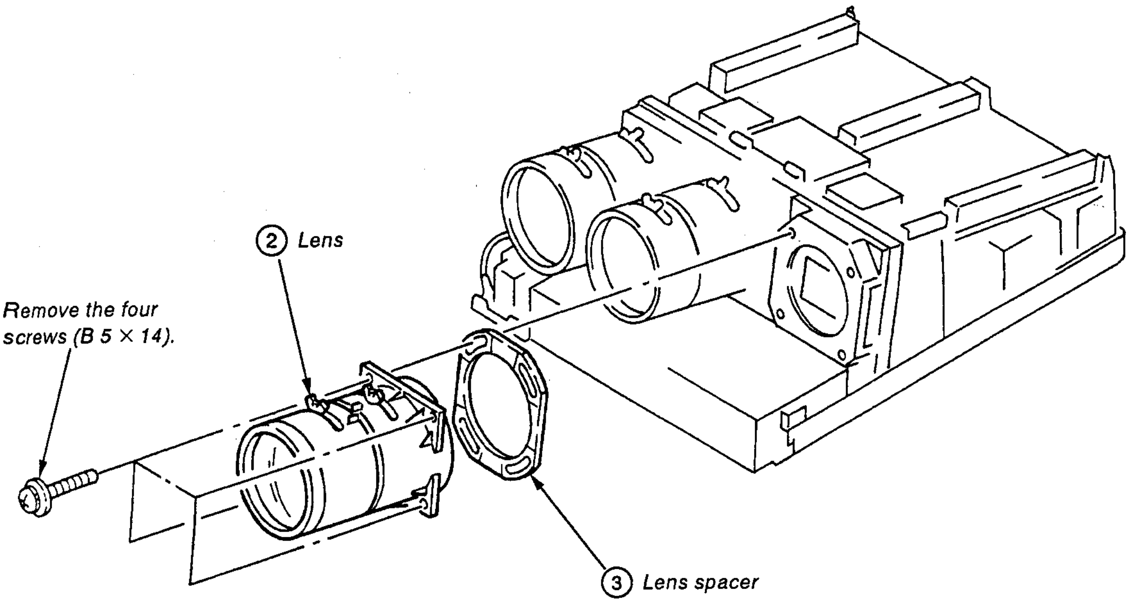
2-3. REMOVE THE CHASSIS ASSEMBLY


① Remove the two socket hexagon bolts.

② Remove the two socket hexagon bolts.

③ Remove the chassis assembly in the direction of arrow Ⓐ.

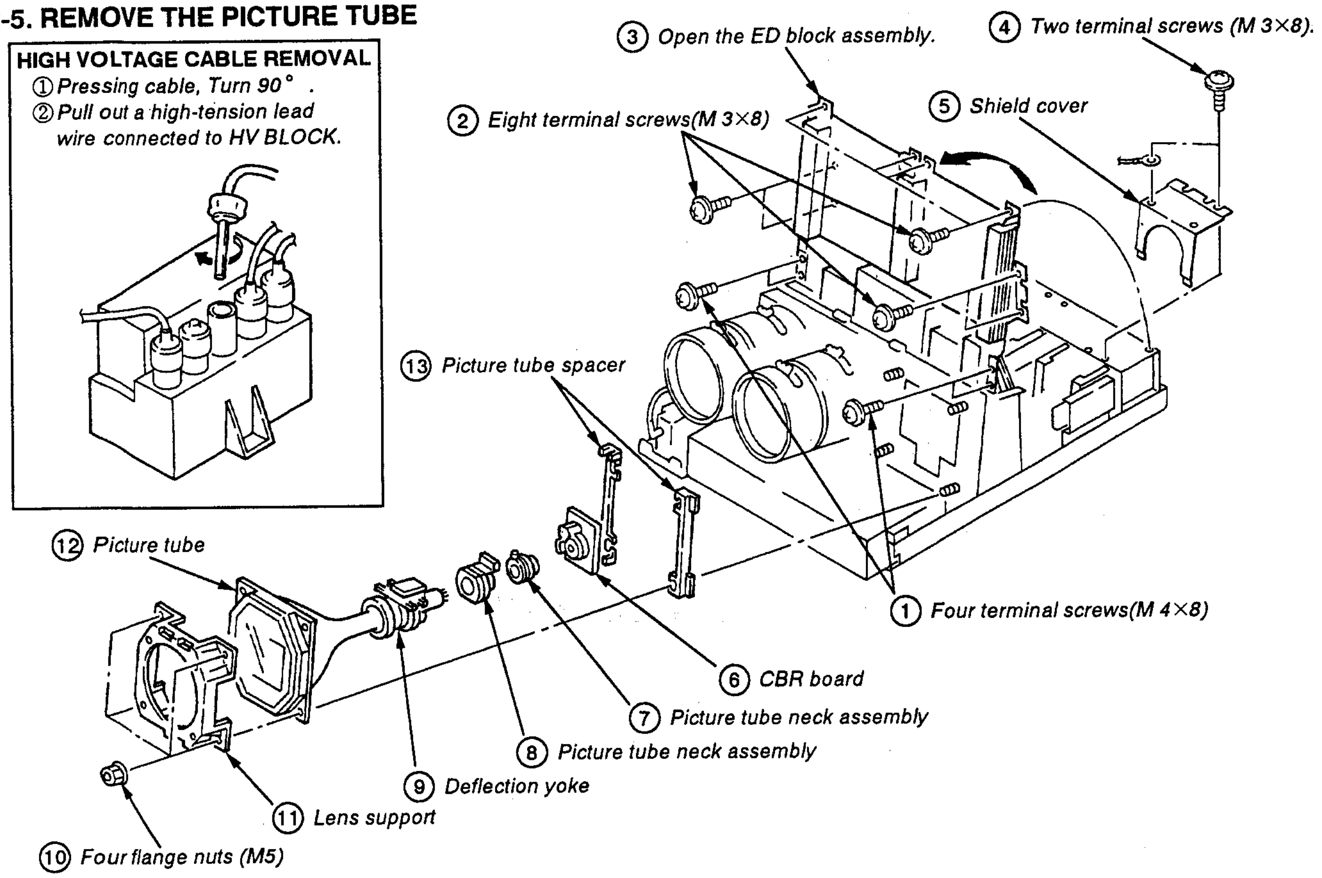
2-4. REMOVE THE LENS


① Remove the four screws (B 5 × 14).

② Lens

③ Lens spacer

2-5. REMOVE THE PICTURE TUBE

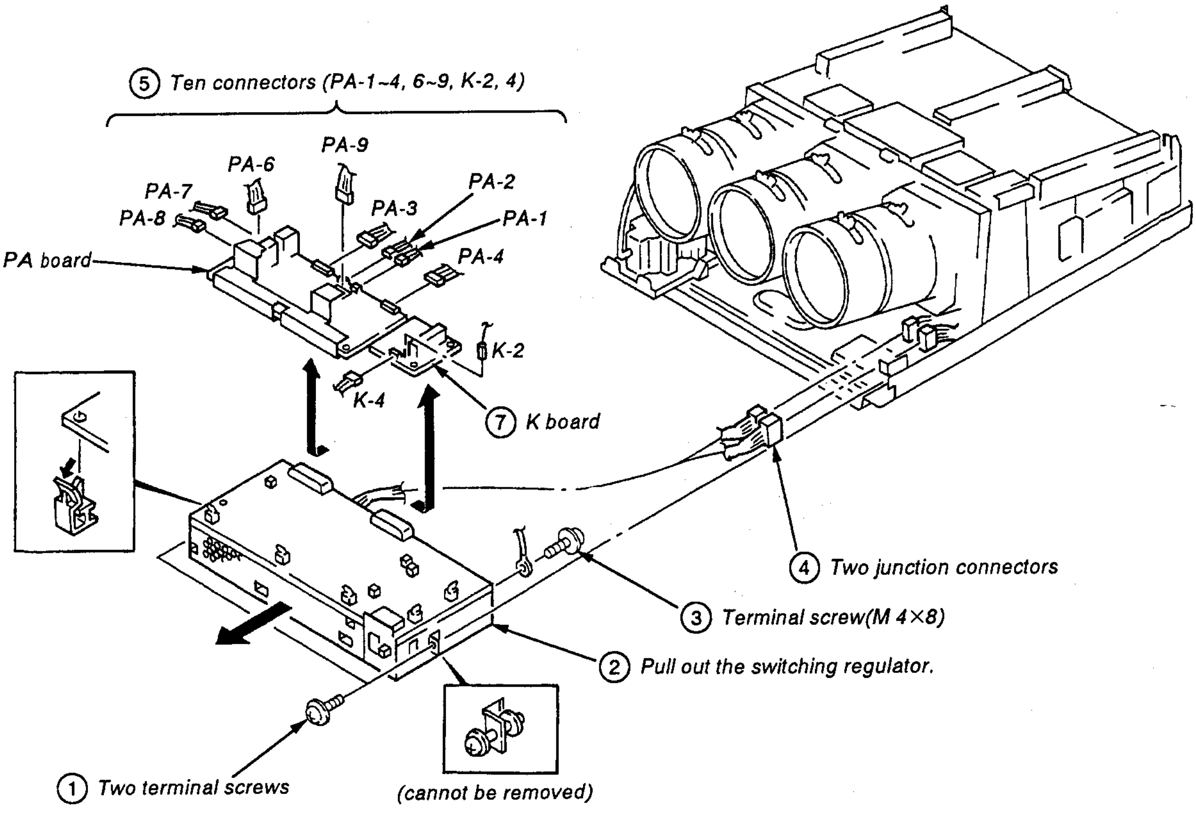


HIGH VOLTAGE CABLE REMOVAL

① *Pressing cable, Turn 90° .*
② *Pull out a high-tension lead wire connected to HV BLOCK.*

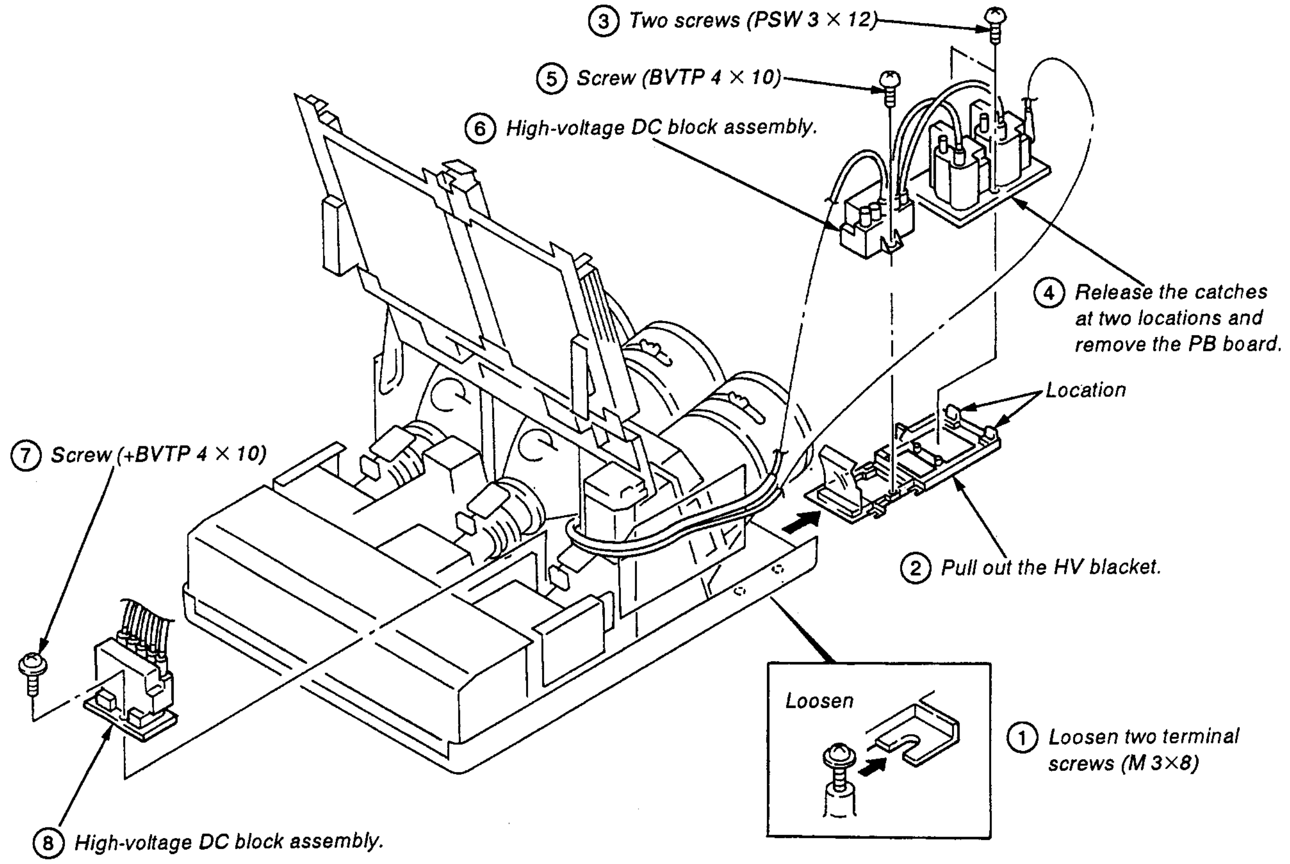
③ Open the ED block assembly.
④ Two terminal screws (M 3×8).
② Eight terminal screws(M 3×8)
⑤ Shield cover
⑬ Picture tube spacer
⑫ Picture tube
① Four terminal screws(M 4×8)
⑥ CBR board
⑦ Picture tube neck assembly
⑧ Picture tube neck assembly
⑨ Deflection yoke
⑪ Lens support
⑩ Four flange nuts (M5)

2-6. REMOVE THE POWER BLOCK AND PA, K BOARDS

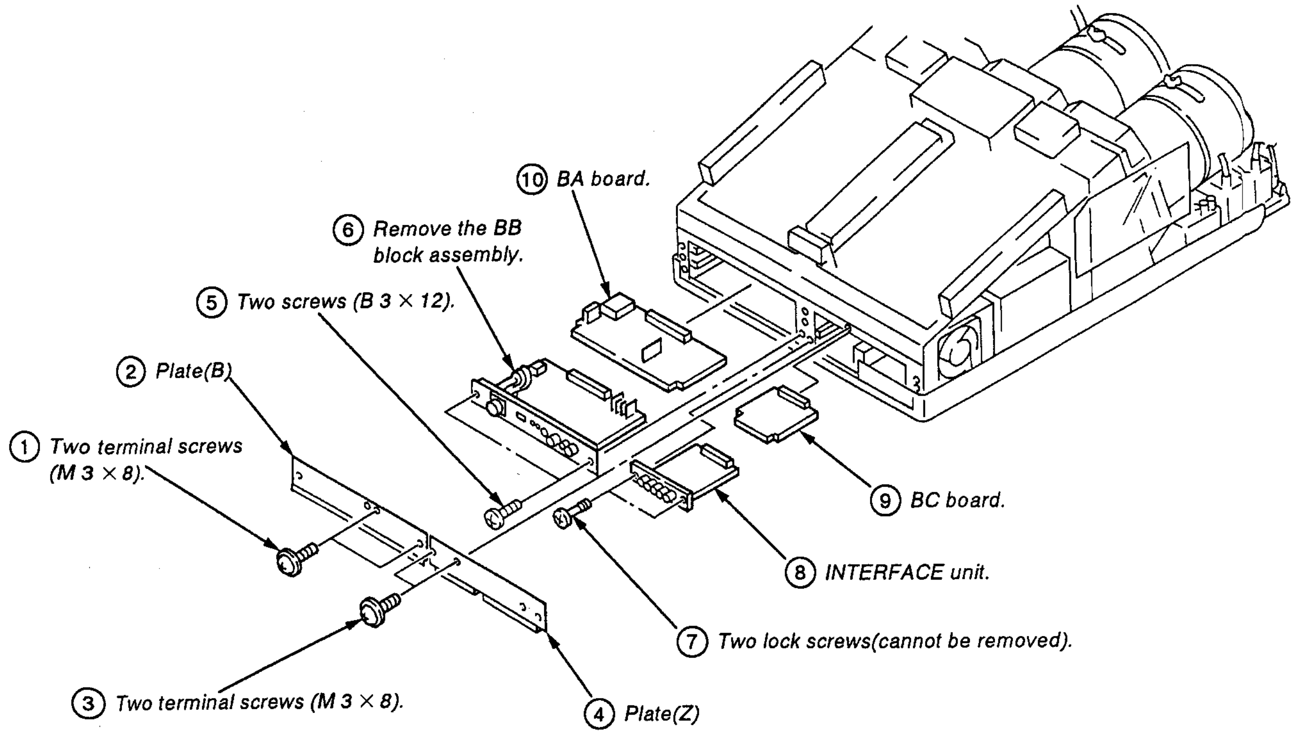


⑤ Ten connectors (PA-1~4, 6~9, K-2, 4)
PA-9
PA-6
PA-7
PA-8
PA-3
PA-2
PA-1
PA-4
⑥ PA board
K-2
K-4
⑦ K board
④ Two junction connectors
③ Terminal screw(M 4×8)
② Pull out the switching regulator.
① Two terminal screws
(cannot be removed)

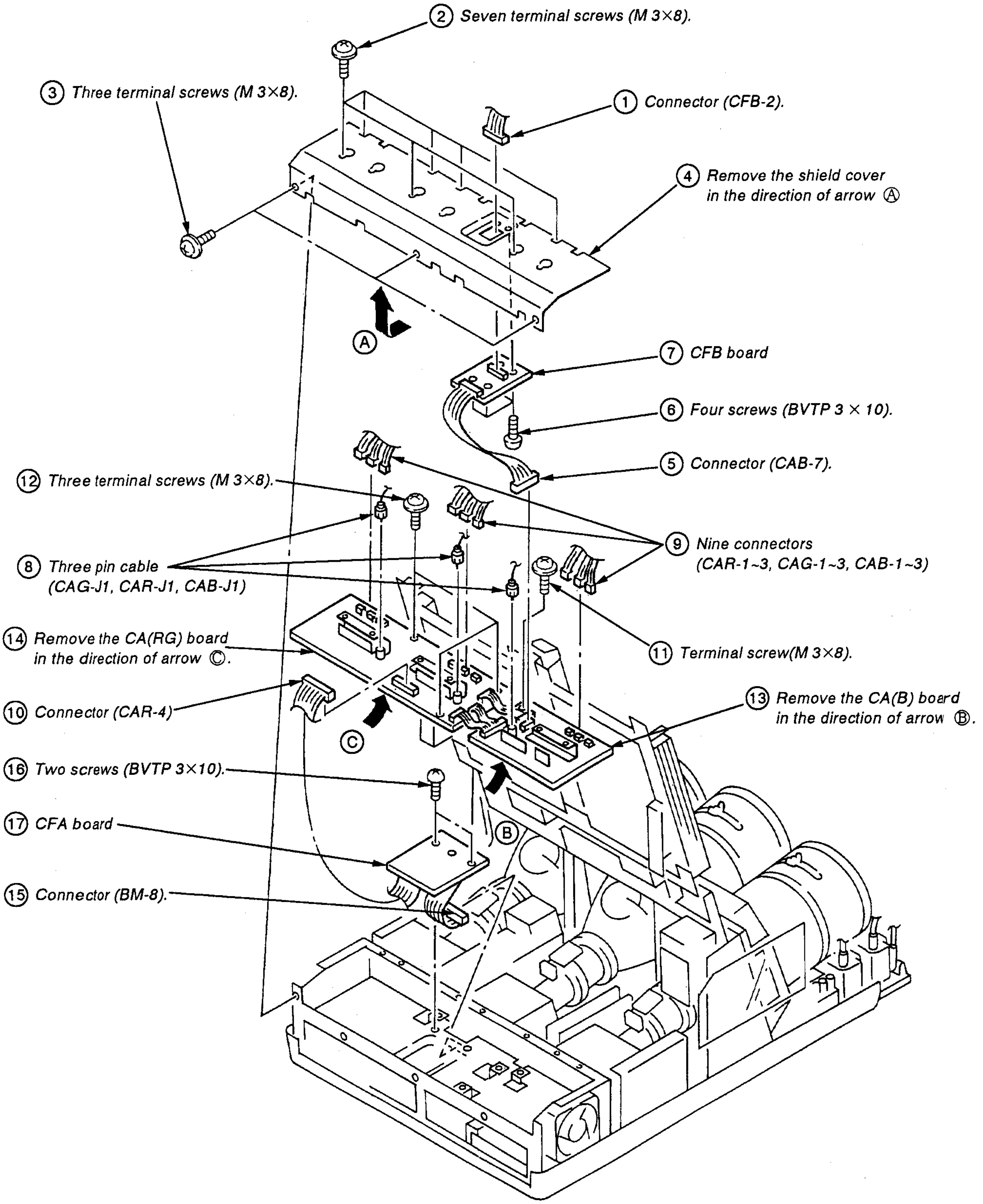
2-7. REMOVE THE HIGH-VOLTAGE BLOCK ASSEMBLY


③ Two screws (PSW 3 × 12)
⑤ Screw (BVTP 4 × 10)
⑥ High-voltage DC block assembly.
④ Release the catches at two locations and remove the PB board.
Location
⑦ Screw (+BVTP 4 × 10)
② Pull out the HV blacket.
Loosen
① Loosen two terminal screws (M 3×8)
⑧ High-voltage DC block assembly.

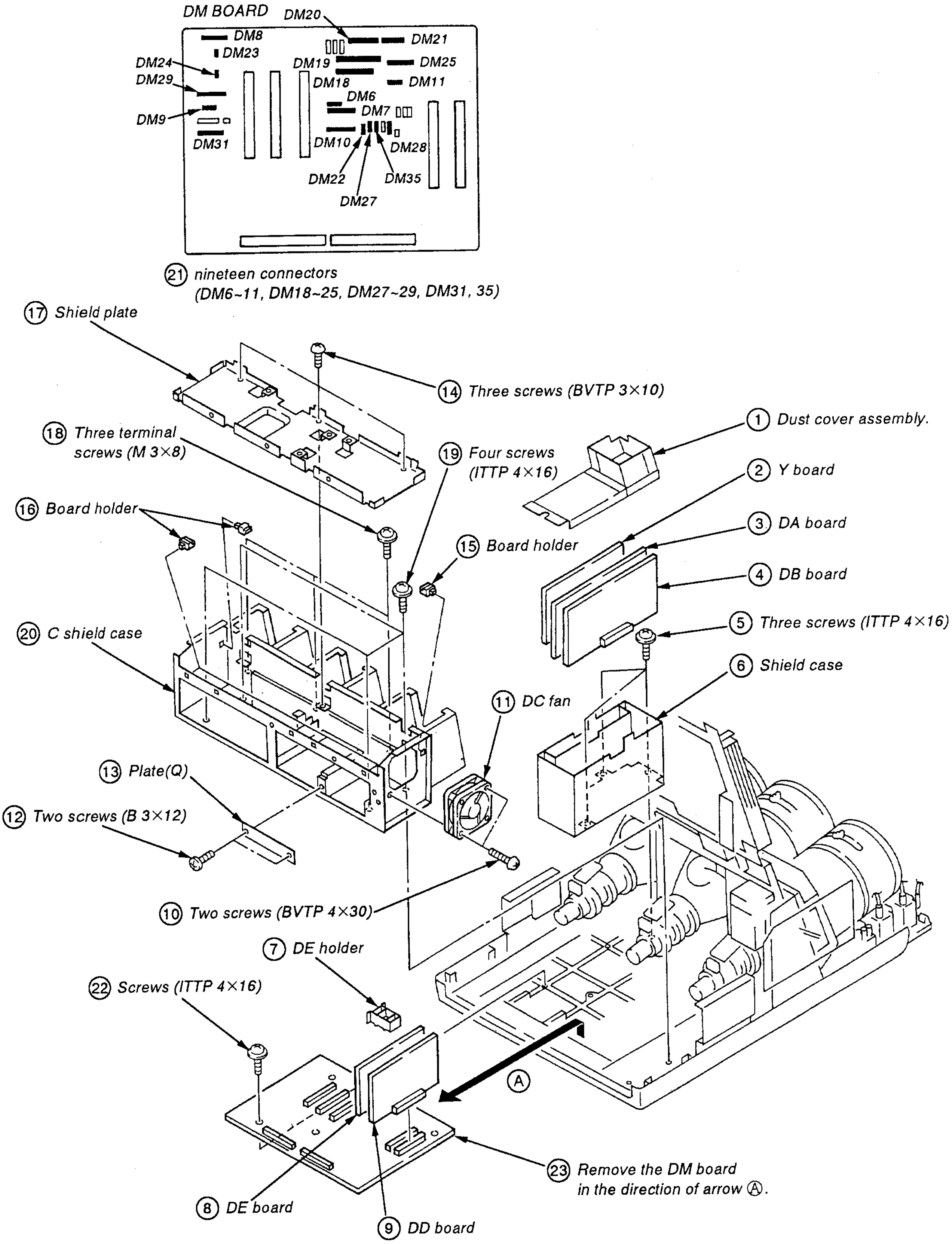
2-8. REMOVE THE INTERFACE UNIT, BA, BC AND BB BLOCK ASSEMBLY


⑩ BA board.
⑥ Remove the BB block assembly.
⑤ Two screws (B 3 × 12).
② Plate(B)
① Two terminal screws (M 3 × 8).
⑨ BC board.
⑧ INTERFACE unit.
⑦ Two lock screws(cannot be removed).
③ Two terminal screws (M 3 × 8).
④ Plate(Z)

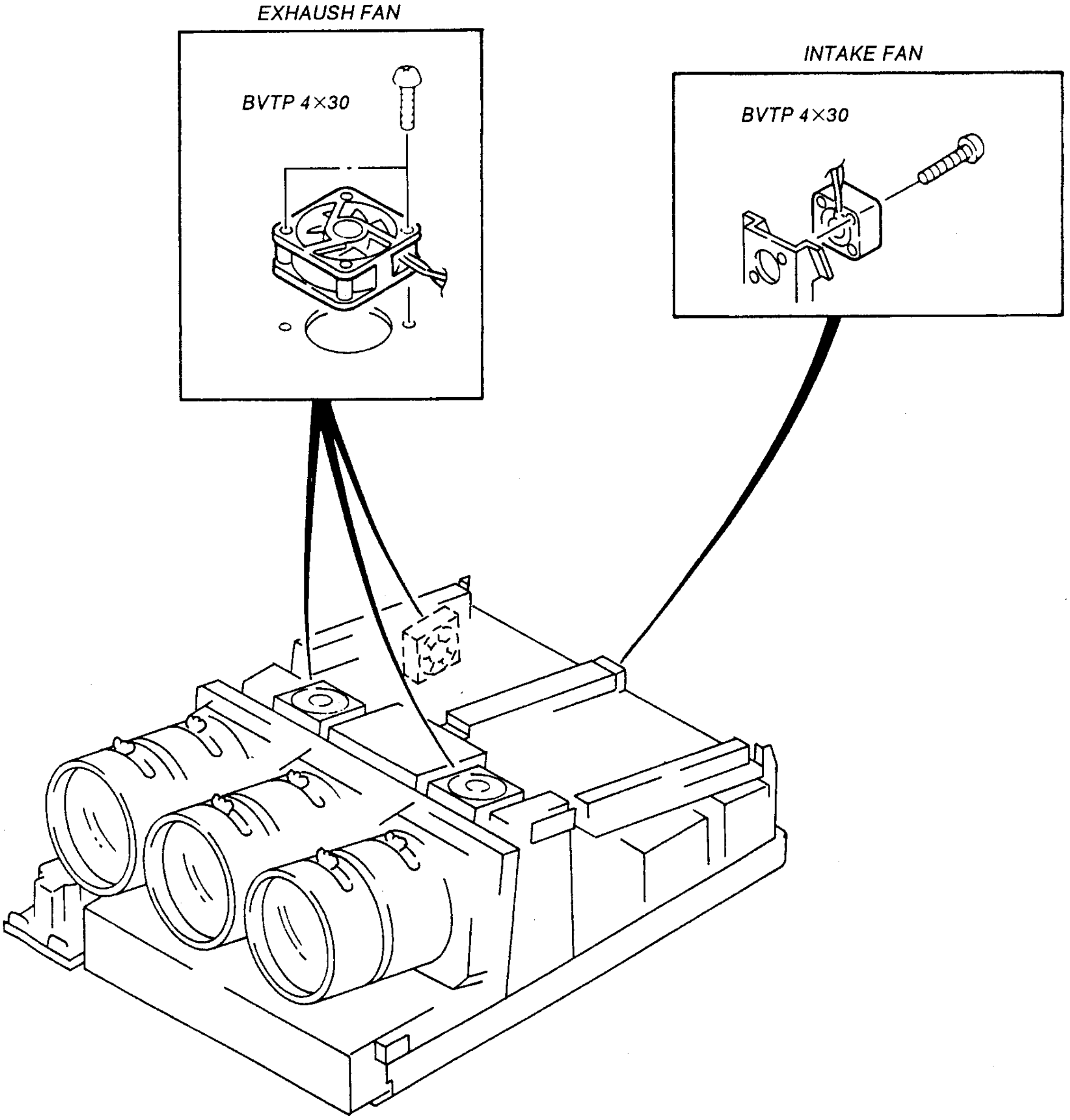
2-9. REMOVE THE CFA, CFB, CA(RG) and CA(B) BOARDS


② Seven terminal screws (M 3×8).
③ Three terminal screws (M 3×8).
① Connector (CFB-2).
④ Remove the shield cover in the direction of arrow Ⓐ
Ⓐ
⑦ CFB board
⑥ Four screws (BVTP 3 × 10).
⑤ Connector (CAB-7).
⑫ Three terminal screws (M 3×8).
⑧ Three pin cable (CAG-J1, CAR-J1, CAB-J1)
⑨ Nine connectors (CAR-1~3, CAG-1~3, CAB-1~3)
⑭ Remove the CA(RG) board in the direction of arrow Ⓒ.
⑪ Terminal screw(M 3×8).
⑩ Connector (CAR-4)
⑬ Remove the CA(B) board in the direction of arrow Ⓑ.
Ⓒ
⑯ Two screws (BVTP 3×10).
Ⓑ
⑰ CFA board
⑮ Connector (BM-8).

2-10. REMOVE THE Y, DA, DB, DM, DD AND DE BOARDS


DM BOARD
DM8
DM23
DM20
DM21
DM24
DM19
DM25
DM29
DM18
DM11
DM6
DM7
DM9
DM31
DM10
DM28
DM22
DM35
DM27
㉑ nineteen connectors (DM6~11, DM18~25, DM27~29, DM31, 35)
⑰ Shield plate
⑭ Three screws (BVTP 3×10)
① Dust cover assembly.
⑱ Three terminal screws (M 3×8)
⑲ Four screws (ITTP 4×16)
② Y board
⑯ Board holder
③ DA board
⑮ Board holder
④ DB board
⑤ Three screws (ITTP 4×16)
⑳ C shield case
⑥ Shield case
⑪ DC fan
⑬ Plate(Q)
⑫ Two screws (B 3×12)
⑩ Two screws (BVTP 4×30)
⑦ DE holder
㉒ Screws (ITTP 4×16)
Ⓐ
㉓ Remove the DM board in the direction of arrow Ⓐ.
⑧ DE board
⑨ DD board

2-11. ATTACHMENT DIRECTION OF DC FAN


EXHAUSH FAN
BVTP 4×30
INTAKE FAN
BVTP 4×30

SECTION 3
TROUBLE SHOOTING

3-1. SELF-DIAGNOSTICS (TROUBLESHOOTING)

3-1-1. Self-diagnostics

This projector is equipped with a LED display on KA board to permit smooth analysis of failure.

Display on LED is in hexadecimal, and Table 3-1. shows relationship between display codes and failure modes. "01", "02", "04", "08", "10" and "20" indicate independent failure mode, respectively. Other codes are combinations of these independent failure modes.

1. Contents of failure modes

(a) "01" - FAN STOP

At least one of 9 FANs (two for power supplies) used in this projector failed: Failure may exists in FAN itself, or disconnection of a FAN connector.

NOTE :

FAN STOP PROTECTOR does not attach to the small micro-FAN on DC board.

(b) "02" - H STOP (100V down)

H deflection stops because of failure on E board or on other boards: Failure may exists in damaged Hout transistor (Q7 on E board).

Voltage building-up on +100V line is unsuccessful because of damaged transistor (Q1) on PC board.

(c) "04" - ΣIk OVER

Abnormal (excessive) current in CRT: The PROTECTOR is activated at about 4.7mA or more of total cathode current. Failure may exist in failed Video OUT transistors (IC101, IC201, IC301) on CAR/CAG/CAB boards, damaged CRT, damaged FBT, or too-high setting of G2 (SCREEN) potentiometer.

(d) "08" - V STOP

V deflection stops because of failure on DC board or other boards (DA or DB, for example) :

Failure may exist in damaged Vout ICs (IC4, IC6, IC8) on DC board, etc.

Overload to ±15V lines on DC board: Failure may exist in damaged Sub-deflection circuit on DC board, or in over correction to registration (∗1).

∗1 : If installation of the projector system is incorrect against projector's optical system, and if you perform adjustments of registration forcibly, then overload to ±15V lines may occur.

(e) "10" - HV OVER

High-voltage (HV) becomes excessive: PROTECTOR is activated at HV = 34kV (±0.3kV). Failure may exist damaged CRT, or damaged HV regulator circuit on PA board.

(f) "20" - POWER DOWN

POWER is turned OFF without control from the commander: Overload to power supply may cause PROTECTOR in power supply to be activated.

NOTE :

If PROTECTOR in power supply is activated, and POWER to the projector is turned OFF, POWER CONT. line in the projector (POWER ON at High (5V), and POWER OFF at Low (0 V)) remains High state (5V). To turn POWER to the projector ON again, press Power Off key on the commander to pull down POWER CONT. line to Low (0 V) state. Then press Power ON key on the commander.

(g) Failure Display

Contents Code	FAN stop	H stop (100V down)	IK over	V stop	HV over	power down
01....	*	—	—	—	—	—
02....	—	*	—	—	—	—
03....	*	*	—	—	—	—
04....	—	—	*	—	—	—
05....	*	—	*	—	—	—
06....	—	*	*	—	—	—
07....	*	*	*	—	—	—
08....	—	—	—	*	—	—
09....	*	—	—	*	—	—
0A....	—	*	—	*	—	—
0b....	*	*	—	*	—	—
0C....	—	—	*	*	—	—
0d....	*	—	*	*	—	—
0E....	—	*	*	*	—	—
0_....	*	*	*	*	—	—
10....	—	—	—	—	*	—
11....	*	—	—	—	*	—
12....	—	*	—	—	*	—
13....	*	*	—	—	*	—
14....	—	—	*	—	*	—
15....	*	—	*	—	*	—
16....	—	*	*	—	*	—
17....	*	*	*	—	*	—
18....	—	—	—	*	*	—
19....	*	—	—	*	*	—
1A....	—	*	—	*	*	—
1b....	*	*	—	*	*	—
AC....	—	—	*	*	*	—
1d....	*	—	*	*	*	—
1E....	—	*	*	*	*	—
1_....	*	*	*	*	*	—
20....	—	—	—	—	—	*

Table. 3-1

2. RS422 communication error code

If errors occur in RS422 communication, display different from that of failure modes appears. Display codes and their contents are as follows:

A0 : Receive time out error

Too long time interval between received Bytes:
(Transmit/Receive data of RS422 requires 3 Bytes per instruction. Error occurs if time interval between Bytes of received data is too long.)

A1 : Handshake error

Discrepancy exists in timing of data transfer with MASTER side.

A2 to AF : Combination of following modes

Table 3-2. shows relationship between codes and combination modes.

Over Run Error

Next data arrives before completion of reading current data.

Parity Error

Parity (odd/even) bit error.

Framing Error

No stop bit is detected.

	Over Run Error	Parity Error	Framing Error
A2	—	—	*
A4	—	*	—
A6	—	*	*
A8	*	—	—
AA	*	—	*
AC	*	*	—
AE	*	*	*

- Software for normal operation is not affected while error codes are displayed.
- Error codes are turned OFF if normal communication is done next time.

3-1-2. Power ON/OFF and Protector Line

1. Power ON/OFF

Power ON/OFF control from the remote commander is done by "POWER CONT." line be pulled-up (High) or pulled-down (Low) (refer to 16-2. Power cont and prot line diagram).

Power CONT. → { High (≒ 5V) → Power ON
Low (≒ 0V) → Power OFF

When the remote commander outputs SIRCS code of "POWER ON", the code passes a signal route shown in Fig. 3-1, then enters to IC9 on Y board. The IC decodes the SIRCS code, and pulls pin ㉘ $\overline{\text{(Power)}}$ down to Low (=0V). Low state on pin ㉘ turns Q3 ON, and "POWER CONT." line becomes High. This turns Q251 ON, and POWER to the projector is turned ON (refer to Fig. 3-2).
Sequence of Power Off is the one completely reversal to that of Power On.

In addition to control from the remote commander, Power-off operation is enabled if something wrong occurs in the projector (refer to Fig. 3-2).
PA board, CR(RG) board, BB boards, and BA board contain transistors to pull down "POWER CONT." line Low forcibly. If something wrong occurs, these transistors are turned ON to pull down "POWER CONT." line, and the projector is turned OFF.

Board	Ref.	Function
PA board	Q15	Turns ON when protector is activated
CA(RG) board	Q2, Q4	Turn ON when voltage building-up on ± 12V power lines is unsuccessful.
BA board	Q25	
BB board	Q404, 405	

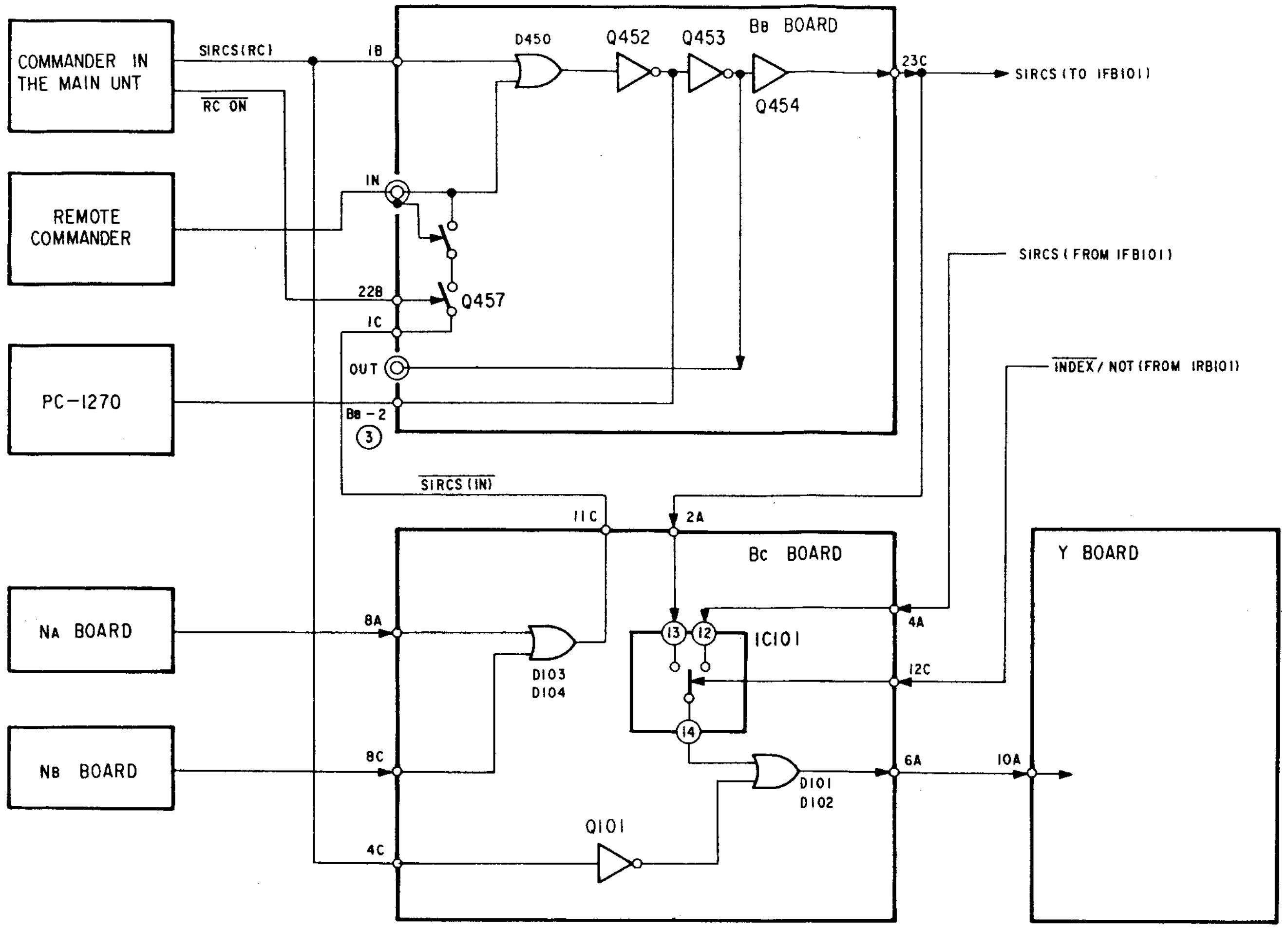


Fig. 3-1 SIRCS line diagram

2. Protector line
There are five
1-by-1 corresp

1. FAN STOF
2. H STOP (1
3. Σ Ik OVER
4. V STOP lir
5. HV OVER

Signal polarity
except FAN S

1. FAN STOP
2. H STO (P10
3. Σ IK OVER
4. V STOP
5. HV OVER

Signal levels
board. Signal
Q15 ON, and
abnormal stat
display failure

*1 : Signals
But sig
other li
line bef

Here is descr
an example.

If some failu
then Q115 o
pulled up to
H. STOP line
LEDs of KB
High, and Q
"POWER C
OFF.

ne

commander is done p (High) or pulled- :ont and prot line

ver ON

er OFF

ts SIRCS code of route shown in Fig. 'he IC decodes the own to Low (=0V). "POWER CONT." , and POWER to the

etely reversal to that

mmander, Power-off rong occurs in the

d BA board contain CONT." line Low hese transistors are NT." line, and the

Function
N when protector is
when voltage up on ± 12V power nsuccessful.

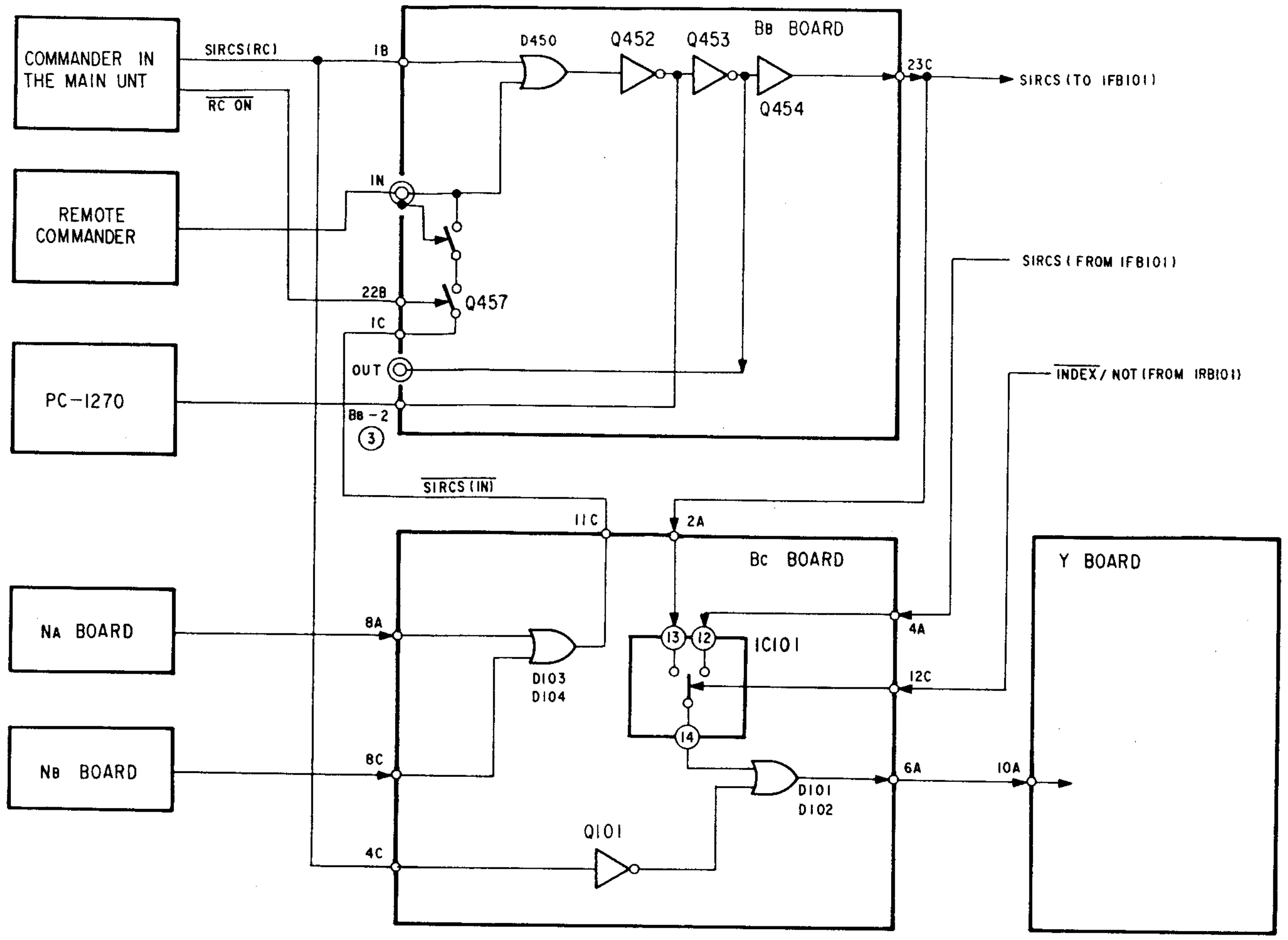

COMMANDER IN THE MAIN UNT
SIRCS(RC)
$\overline{\text{RC ON}}$
REMOTE COMMANDER
PC-1270
NA BOARD
NB BOARD
1B
D450
Q452
Q453
BB BOARD
Q454
23C
SIRCS (TO IFB101)
IN
22B
Q457
1C
OUT
BB-2
③
SIRCS (FROM IFB101)
$\overline{\text{INDEX}}$/ NOT (FROM IRB101)
$\overline{\text{SIRCS (IN)}}$
11C
2A
BC BOARD
Y BOARD
8A
D103
D104
13
12
IC101
14
4A
12C
8C
6A
10A
D101
D102
Q101
4C

Fig. 3-1 SIRCS line diagram

2. Protector line

There are five protector lines as shown below, and they are in 1-by-1 correspondence with failure modes:

1. FAN STOP line
2. H STOP (100V down) line
3. Σ Ik OVER line
4. V STOP line
5. HV OVER line

Signal polarity on each protector line is normally Low (≒0V) except FAN STOP line which is normally High (≒5V).

	normal state	abnormal state
1. FAN STOP	High	Low
2. H STO (P100V down)	Low	High
3. Σ IK OVER	Low	high
4. V STOP	Low	High
5. HV OVER	Low	High

Signal levels on these lines are all entered to PA board and Y board. Signals entered to PA board are ORed (✱1) to turn Q15 ON, and turns the projector OFF. Y board monitors abnormal state on signal levels, and sends data to L board to display failure modes.

✱1 : Signals are ORed by D24, 25, 28 and 29 on PA board. But signal polarity on FAN STOP line is reversal to other lines. So, Q17 inverts the signal on FAN STOP line before the signal is mixed.

Here is description when H. STOP protector is activated, as an example.

If some failure occurs in E board, and H deflection stops, then Q115 on E board is turned OFF, and H. STOP line is pulled up to High (≒5V). Y board detects the High state on H. STOP line, and sends data to KB board to display "02" on LEDs of KB board. On the other hand, D24 and Q16 become High, and Q15 is turned ON. This forcibly pulls down "POWER CONT." line to Low, and the projector is turned OFF.

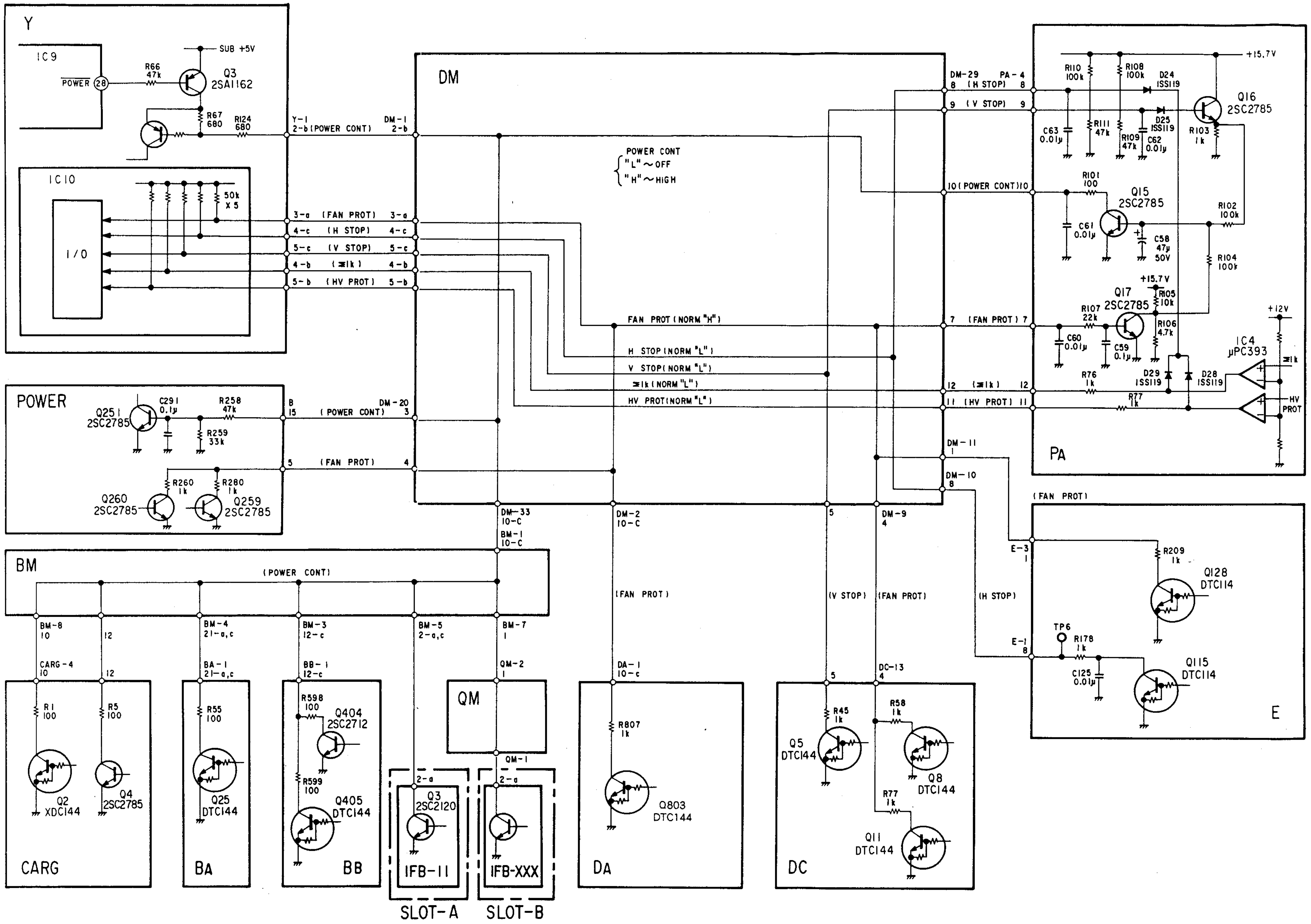
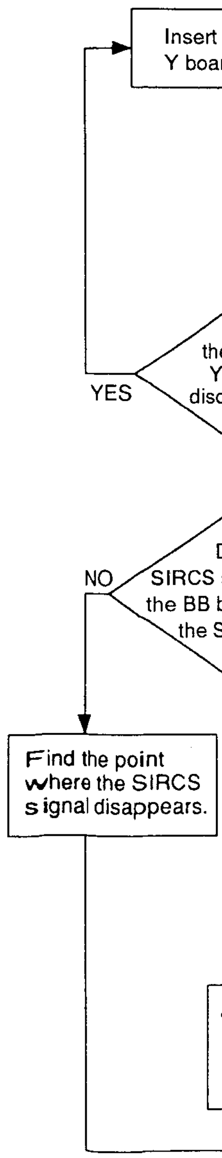

Y
IC9
POWER 28
R66 47k
Q3 2SA1162
SUB +5V
R67 680
R124 680
IC10
I/O
50k x5
Y-1 2-b (POWER CONT) DM-1 2-b
3-a (FAN PROT) 3-a
4-c (H STOP) 4-c
5-c (V STOP) 5-c
4-b (≡Ik) 4-b
5-b (HV PROT) 5-b
DM
POWER CONT
"L"～OFF
"H"～HIGH
FAN PROT (NORM "H")
H STOP (NORM "L")
V STOP (NORM "L")
≡Ik (NORM "L")
HV PROT (NORM "L")
POWER
Q251 2SC2785
C291 0.1μ
R258 47k
R259 33k
B 15 (POWER CONT) DM-20 3
5 (FAN PROT) 4
R260 1k
R280 1k
Q260 2SC2785
Q259 2SC2785
DM-33 10-C
BM-1 10-C
DM-2 10-C
5
DM-9 4
BM
(POWER CONT)
BM-8 10
12
BM-4 21-a,c
BM-3 12-c
BM-5 2-a,c
BM-7 1
CARG-4 10
12
BA-1 21-a,c
BB-1 12-c
QM-2 1
QM
QM-1
R1 100
R5 100
Q2 XDC144
Q4 2SC2785
CARG
R55 100
Q25 DTC144
BA
R598 100
Q404 2SC2712
R599 100
Q405 DTC144
BB
2-a
Q3 2SC2120
IFB-11
SLOT-A
2-a
IFB-XXX
SLOT-B
(FAN PROT)
DA-1 10-c
R807 1k
Q803 DTC144
DA
(V STOP)
(FAN PROT)
(H STOP)
DC-13 4
5
R45 1k
Q5 DTC144
R58 1k
Q8 DTC144
R77 1k
Q11 DTC144
DC
DM-29 PA-4
8 (H STOP) 8
9 (V STOP) 9
10 (POWER CONT) 10
7 (FAN PROT) 7
12 (≡Ik) 12
11 (HV PROT) 11
DM-11 1
DM-10 8
+15.7V
R110 100k
R108 100k
D24 1SS119
Q16 2SC2785
R111 47k
D25 1SS119
C63 0.01μ
R109 47k
C62 0.01μ
R103 1k
R101 100
Q15 2SC2785
R102 100k
C61 0.01μ
C58 47μ 50V
R104 100k
+15.7V
R105 10k
Q17 2SC2785
R107 22k
R106 4.7k
C60 0.01μ
C59 0.1μ
+12V
IC4 μPC393
≡Ik
R76 1k
D29 1SS119
D28 1SS119
R77 1k
HV PROT
PA
(FAN PROT)
E-3 1
R209 1k
Q128 DTC114
TP6
E-1 8
R178 1k
C125 0.01μ
Q115 DTC114
E

Fig. 3-2 Power cont and prot line diagram

Flow Chart When the Po


Insert
Y boar
YES
the
Y
disc
NO
SIRCS
the BB b
the S
Find the point where the SIRCS signal disappears.

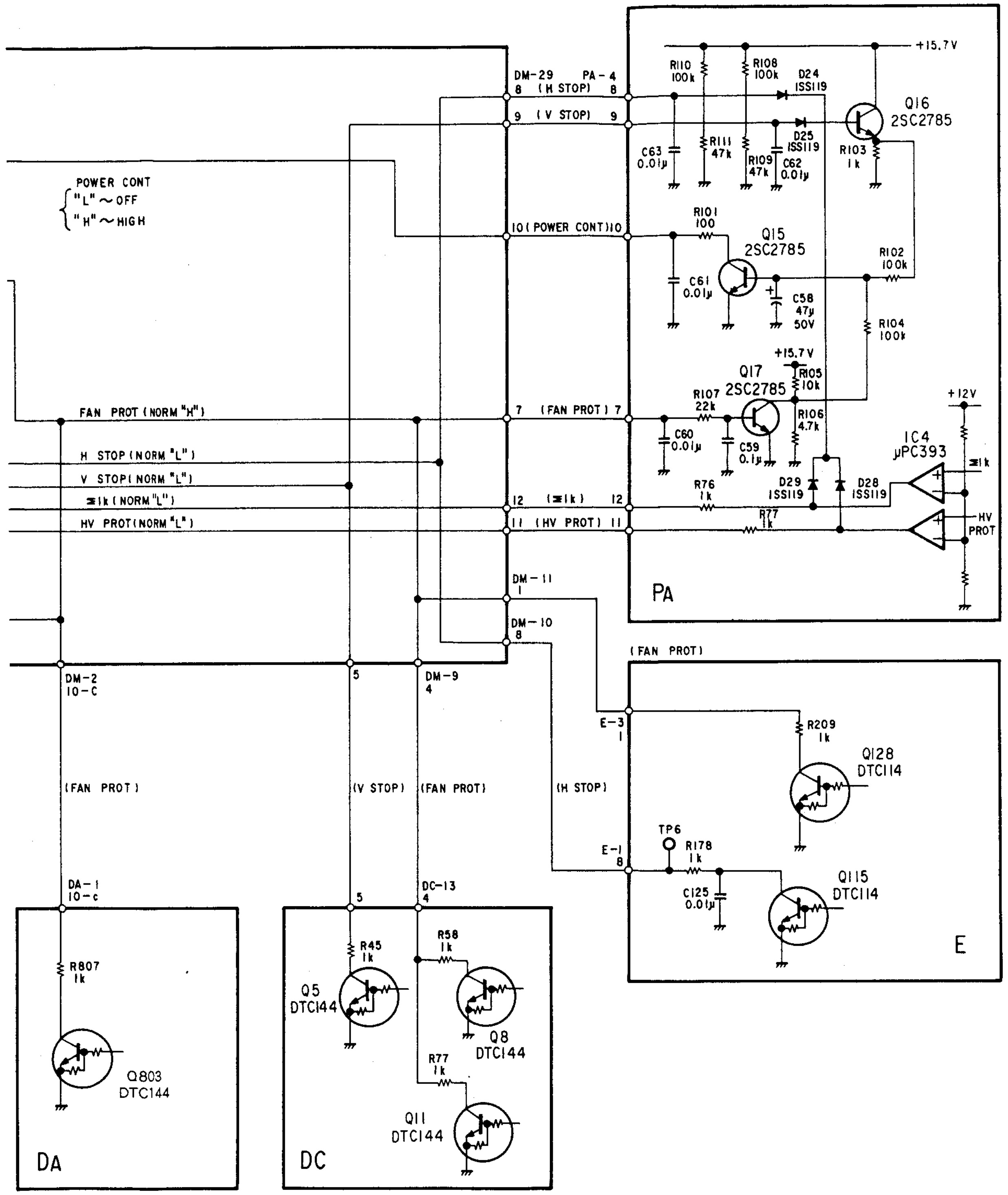
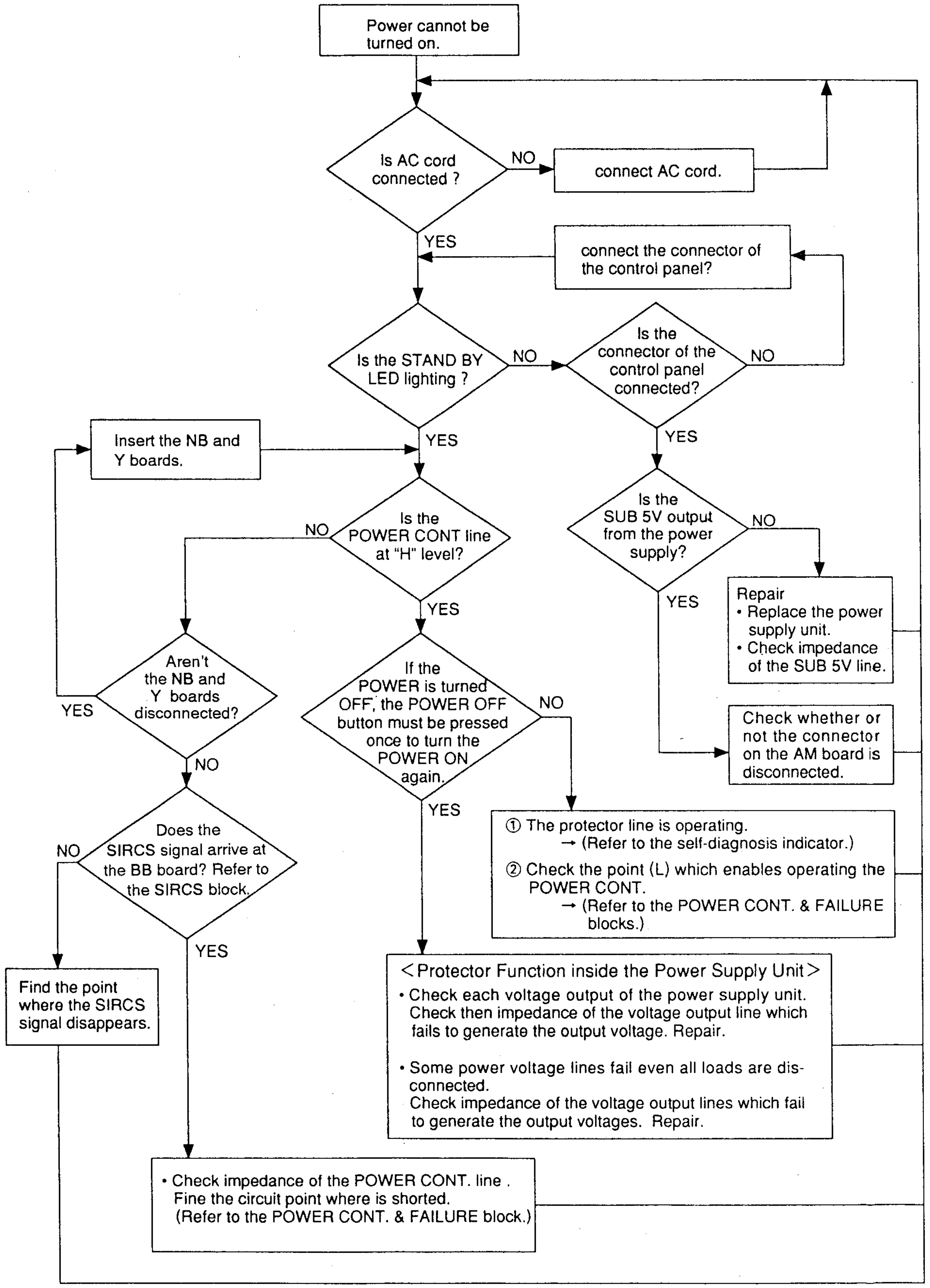

POWER CONT
"L" ~ OFF
"H" ~ HIGH
DM-29 PA-4
8 (H STOP) 8
9 (V STOP) 9
10 (POWER CONT) 10
7 (FAN PROT) 7
12 (≡Ik) 12
11 (HV PROT) 11
FAN PROT (NORM "H")
H STOP (NORM "L")
V STOP (NORM "L")
≡Ik (NORM "L")
HV PROT (NORM "L")
+15.7V
R110 100k
R108 100k
D24 1SS119
Q16 2SC2785
C63 0.01μ
R111 47k
D25 1SS119
R109 47k
C62 0.01μ
R103 1k
R101 100
Q15 2SC2785
C61 0.01μ
C58 47μ 50V
R102 100k
R104 100k
+15.7V
Q17 2SC2785
R105 10k
R107 22k
R106 4.7k
C60 0.01μ
C59 0.1μ
R76 1k
D29 1SS119
D28 1SS119
R77 1k
+12V
IC4 μPC393
HV PROT
PA
DM-11 1
DM-10 8
(FAN PROT)
DM-2 10-C
5
DM-9 4
(FAN PROT)
(V STOP)
(FAN PROT)
(H STOP)
E-3 1
R209 1k
Q128 DTC114
TP6
E-1 8
R178 1k
C125 0.01μ
Q115 DTC114
E
DA-1 10-c
R807 1k
Q803 DTC144
DA
5
DC-13 4
R45 1k
R58 1k
Q5 DTC144
Q8 DTC144
R77 1k
Q11 DTC144
DC

Fig. 3-2 Power cont and prot line diagram

Flow Chart When the Power Cannot be Turned On


Power cannot be turned on.
Is AC cord connected ?
NO
connect AC cord.
YES
connect the connector of the control panel?
Is the STAND BY LED lighting ?
NO
Is the connector of the control panel connected?
NO
YES
YES
Insert the NB and Y boards.
Is the POWER CONT line at "H" level?
NO
Is the SUB 5V output from the power supply?
NO
YES
Repair
• Replace the power supply unit.
• Check impedance of the SUB 5V line.
YES
Aren't the NB and Y boards disconnected?
YES
NO
If the POWER is turned OFF, the POWER OFF button must be pressed once to turn the POWER ON again.
NO
Check whether or not the connector on the AM board is disconnected.
YES
① The protector line is operating.
→ (Refer to the self-diagnosis indicator.)
② Check the point (L) which enables operating the POWER CONT.
→ (Refer to the POWER CONT. & FAILURE blocks.)
Does the SIRCS signal arrive at the BB board? Refer to the SIRCS block.
NO
YES
Find the point where the SIRCS signal disappears.
<Protector Function inside the Power Supply Unit>
• Check each voltage output of the power supply unit. Check then impedance of the voltage output line which fails to generate the output voltage. Repair.
• Some power voltage lines fail even all loads are disconnected. Check impedance of the voltage output lines which fail to generate the output voltages. Repair.
• Check impedance of the POWER CONT. line . Fine the circuit point where is shorted. (Refer to the POWER CONT. & FAILURE block.)

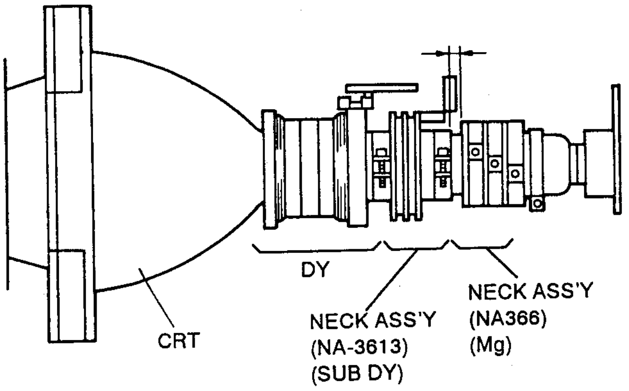
SECTION 4
SET-UP ADJUSTMENTS

Note:

- When exchanging CRT, fit tightly DY to CRT, set neck assembly position and adjust.
- Service mode is released when the power is turned OFF.

4-1. NECK ASSEMBLY INSTALLATION

1. Fit DY tightly to CRT funnel first and then tightly fit Sub DY.
2. Temporary install 2-pole and 4-pole magnet assembly adhere to sub DY.
3. Installing CB board.



4-2. DISPLAY INCLINATION ADJUSTMENT BY MAIN DY

1. Turn on the power switch of the set and the power key of the remote commander.

   Push the PAGE key to release from aging
2. Press the TEST key for five seconds, and press the arrow ▲ key to set the service man mode.
3. Press SKEW , and use the ▲ and ▼ keys to set the V direction data of R, G, B to "128" .

$R\left\{\begin{array}{l}H : --\\ V : 128\end{array}\right.$ $G\left\{\begin{array}{l}H : --\\ V : 128\end{array}\right.$ $B\left\{\begin{array}{l}H : --\\ V : 128\end{array}\right.$

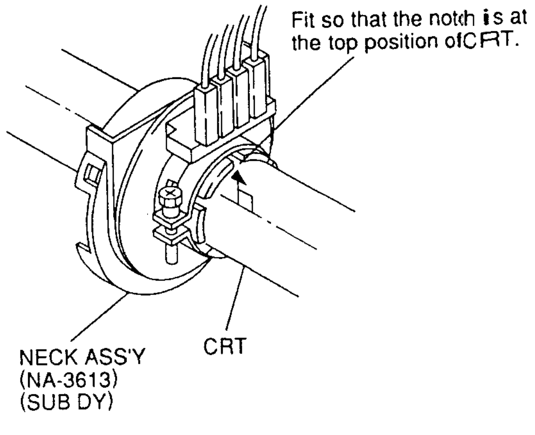
4. Rotate the main DY, and adjust the inclination of the display.
   - If the red CRT has been replaced, output the green and red cross hair patterns, and adjust the horizontal lines of the cross hair pattern to the green CRT which have been adjusted.
   - If the green or blue CRT have been replaced, output the cross hair patterns as above, and output the two colors of the CRT that was replaced and other CRT which have been adjusted, and adjust the horizontal lines of the cross hair pattern to the CRT which have been adjusted.
5. Secure the main DY in place after completing the adjustments.

Note 1. Be sure to adjust the main DY after the V direction data of SKEW has been adjusted to "128" .

Note 2. Adjust so that the horizontal lines of the cross hair pattern coincide. (The vertical lines are adjusted during SKEW adjustments, after the main DY has been adjusted.)

4-3. SUB-DY ADJUSTMENT

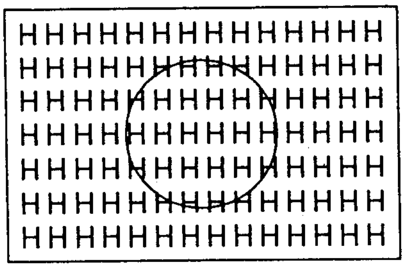
1.Fit to main DY and set at the mechanical center.

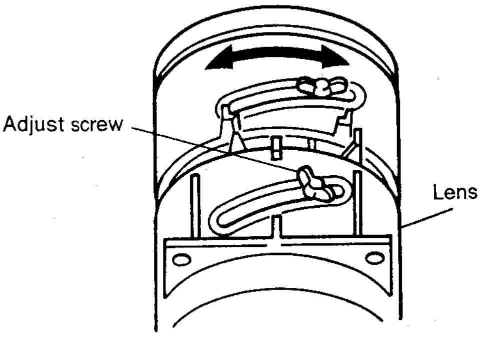

Fit so that the notch is at the top position of CRT.
NECK ASS'Y (NA-3613) (SUB DY)
CRT

4-4. GREEN LENS FOCUS ADJUSTMENT

1. Use the commander to select an input A.(To set fH=33.4 kHz)
2. Press the [TEST] key for five seconds, and press the [▲] key next to set the service man mode. (Not required when already in the service man mode).
3. Press the [TEST] key, and output the H pattern.
4. Adjust "CONTR" and "BRT" of PICTURE CONTROL, and set CONTR: 50 BRT: 50.
5. Press the CUT OFF [R] and [B] keys, and set to green (single color).
6. Loosen the screw of the main lens of green, rotate the lens so that the H pattern at the center of the screen becomes the clearest, and tighten the screw once more.

* Pay attention to the center of the screen.
(Around ○ in the figure below)





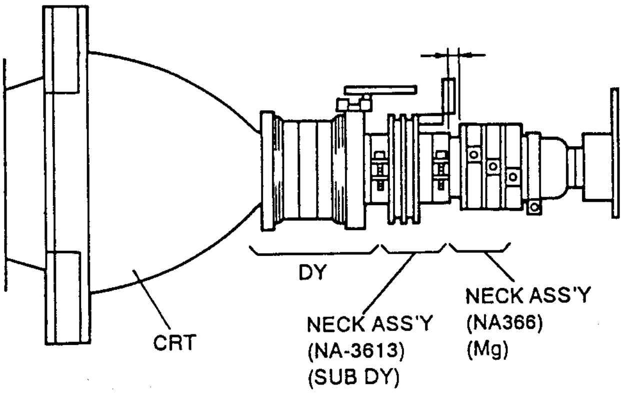
4-5. RED LENS FOCUS ADJUSTMENT

1. Press the CUT OFF [G] and [B] keys of the commander, and set to red (single color).
2. Adjust as in the green lens focus adjustment.

4-6. BLUE LENS FOCUS ADJUSTMENT

1. Press the CUT OFF [R] and [G] keys of the commander, and set to blue (single color).
2. Adjust as in the green lens focus adjustment.

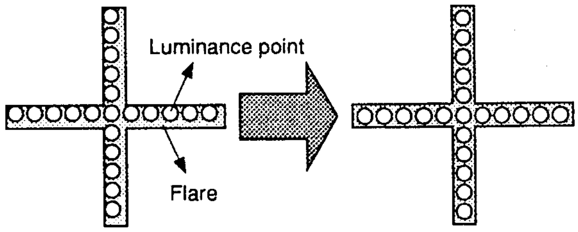
4-7. GREEN 2/4-POLE ADJUSTMENT



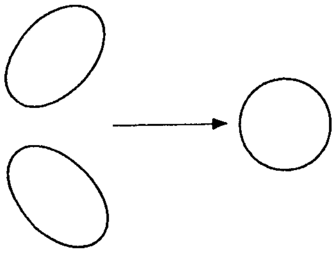
1. Use the commander to select an input A.(To set fH=33.4 kHz)
2. Press the [TEST] key for five seconds, and press the [▲] key to set the service man mode (Not required when already in service man mode).

   Press the [RESET] key, and set CONTR:80, BRT:50.
3. Press the CUT OFF [R] and [B] keys, and set to green (single color).
4. Press the [TEST] key, and output the cross hair pattern.
5. Rotate the green focus VR of the focus pack slightly to the left of the JUST point, and adjust so that there is flare on the cross hair pattern.
6. Adjust the 2-pole magnet so that the luminance point lies at the center of the flare.

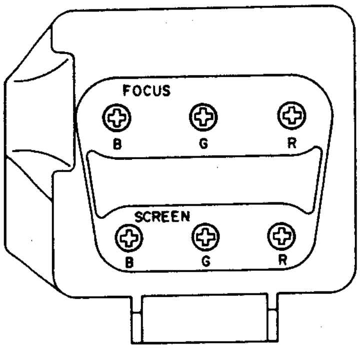
* Adjust so that the luminance point lies at the center of the flare.



7. Press the TEST key and output the dot pattern.
8. Rotate the green focus VR of the focus pack slightly to the right of the JUST point, and over-focus the dot.
9. Adjust the 4-pole magnet so that the dot becomes round.



10. Repeat steps 4. to 9. and perform tracking as required.
11. Set the focus to JUST.



4-8. RED 2/4-POLE ADJUSTMENT

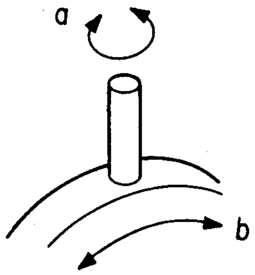
1. Press the CUT OFF G and B keys of the commander and set to red (single color).
2. Perform as in the green 2/4-pole adjustment.

4-9. BLUE 2/4-POLE ADJUSTMENT

Note: To adjust the BLUE FOCUS is anxious to change the W/B therefore do not adjust the FOCUS except replace the CRT.

1. Press the CUT OFF R and G keys of the commander and set to blue (single color).
2. Perform as in the green 2/4-pole adjustment.

Note: Method of adjusting the 2/4-pole



a · · · · · Modulates the power of the magnetic force
b · · · · · Modulates the direction of the magnetic force.

To adjust the 2-pole or 4-pole, rotate the knob in the direction shown a and then in the direction shown b, and adjust to optimum.

4-10. GREEN ELECTRIC FOCUS ADJUSTMENT

1. Use the commander to select an input A.(To set fH=33.4 kHz)
2. Press the TEST key continuously for five seconds, and press the ▲ key to set the service man mode.
   (Not required if already in the service man mode.)
3. Press the RESET key and set CONTR: 80, BRT: 50.
4. Press the CUT OFF R and B keys, and set to green (single color).
5. Rotate the GREEN volume of the focus pack, and adjust so that the H pattern is the clearest.

4-11. RED ELECTRIC FOCUS ADJUSTMENT

1. Press the CUT OFF G and B keys of the commander and set to red (single color).
2. Adjust as in the green electric focus adjustment.

4-12. BLUE ELECTRIC FOCUS ADJUSTMENT

1. Press the CUT OFF R and G keys of the commander , and set to blue (single color).
2. Rotate the blue focus VR of the focus pack right so that the brightness increase 30% from JUST FOCUS.

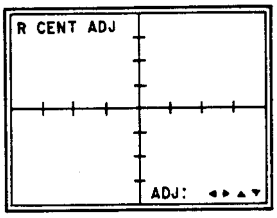
Note 1: The brightness in the blue electric focus adjustment changes according to its focus point. The brightest spotis at the JUST point.

Note 2: When the blue electric focus adjustment has been performed, the brightness of blue will changeand the W/B may shift. Do not adjust unless the CRT has beenreplaced.

4-13. REGISTRATION ADJUSTMENT

Centering Adjustment

1. Press ZONE to display cross - hairs.
2. Press ADJ R when the red CRT is replaced.
3. Use the arrow keys ◀ ▶ ▲ ▼ and align the red center line with the green center line.



Note 1: Zone control mode ① adjust centering.

CENT R and B provide small variation width for users.

CENT R and B become the R centering adjust mode when pressed simultaneously. The variation width is also small.

Note 2: When the computer display is shifted, press RGB SHIFT and adjust with arrow keys ◀ ▶ ▲ ▼. Then, press MEMORY . The test signal positiondose not shift after pressing TEST.

Note 3: Follow the instructions below when the VIDEO display position is shifted:

① Press ZONE .

② Press ADJ G .

③ Press TEST for minimum 5 seconds to display VIDEO.
Press CUT OFF R and B for GREEN mono color.
Adjust with arrow keys ◀ ▶ ▲ ▼.

④ Press ZONE again.
Press ADJ R .
Match Green and Red.

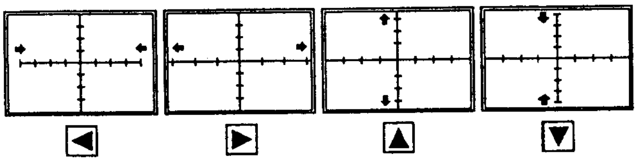
⑤ Press ADJ B to match Red and Blue.

⑥ Press NORMAL to match Red and Blue.

⑦ Press TEST .
Test signal position is shifted.

Size Adjustment

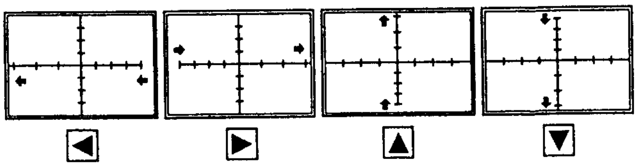
1. Press SIZE for size adjustment mode.
2. Adjust display size against the screen with arrow keys.
3. Match four display dimensions.



4. Follow the instructions below when the computer display size is too small or too large. Press RGB SIZE and adjust with arrow keys ◀ ▶ ▲ ▼.
   Press MEMORY key.
   Test signal size is same when pressing TEST.

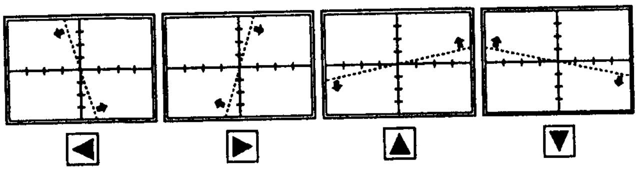
Linearity Adjustment

1. Press LIN and set at linearity adjustment mode.
2. Use arrow keys to adjust vertical and horizontal balance.
3. Adjust in four direction.



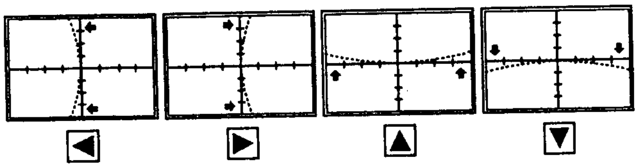
Skew Adjustment

1. Press SKEW and set at skew adjustment mode.
2. Use arrow keys to adjust each center line vertically and horizontally.



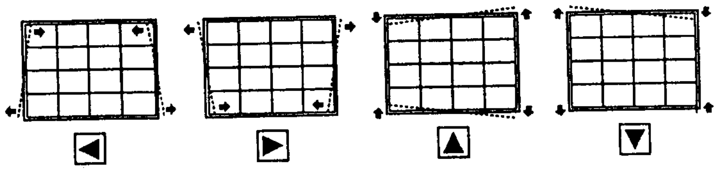
Bow Adjustment

1. Press BOW and set at bow adjustment mode.
2. Use arrow keys to straighten bowing line.



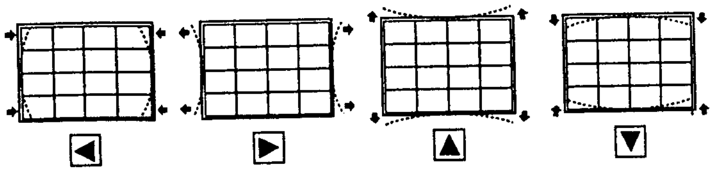
Keystone Adjustment

1. Press KEY and set at keystone adjustment mode.
2. Use arrow keys to adjust trapezoid shape distortions vertically and horizontally.



Pincushion Adjustment

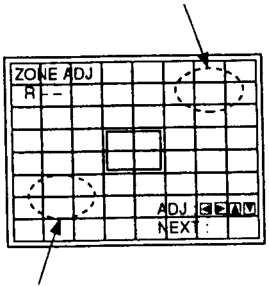
1. Press PIN and set at pin adjustment mode.
2. Use arrow keys to adjust spool shape distortion vertically and horizontally.

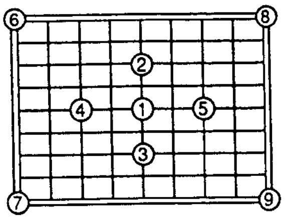


Zone Adjustment

1. Press ZONE and set at zone adjustment mode.
2. Press POSITION + and − keys to select part to be adjusted.
3. Use arrow keys ◀ ▶ ▲ ▼ to adjust line distortion near cursor.

The cursor position is displayed.





The data is displayed.

NOTE : Refer to the installation manual for details of the registration adjustment.

4-14. WHITE BALANCE ADJUSTMENT

<Preparations>

① Press TEST for more than 5 sec.

② Screen display will change to service man mode display.

③ Press arrow key ▲ .

1. G2 (Screen) VR Adjustment

① Use the commander to select an input A.(To set fH=33.4 kHz)

② Press the TEST key continuously for five seconds, and press the ▲ key to set the service man mode.
(Not required if already in the service man mode.)

③ Press the PAGE key and set the color temperature to 6500°K.

④ Press the BIAS key and set the bias adjustment mode.

⑤ Press the arrow ◀ and ▶ keys simultaneously and check that the following messages are displayed.

⑥ Press the arrow ▲ key. (This will input the factory preset data in the memory.)

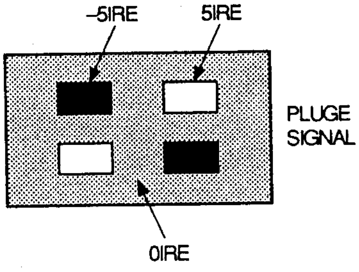
factory preset data ?
Yes : ▲
No : ▼

⑦ When performing adjustments using the digital voltmeter, adjust as follows.

1) Adjust the BLUE G2 VR so that the voltage between Pins ① and ② of the CFB-4 connector of the CFB board becomes 4 ± 0.2VDC.
2) Adjust the GREEN G2 VR so that the voltage between Pins ① and ③ of the CFB-4 connector of the CFB board becomes 4 ± 0.2VDC.
3) Adjust the RED G2 VR so that the voltage between Pins ① and ④ of the CFB-4 connector of the CFB board becomes 4 ± 0.2VDC.

⑧ When performing adjustments without using the digital voltmeter, adjust as follows.

1) Short circuit ① and ② of the CFB-3 connector (2P) of the CFB board.
2) Postulate to pich-dark around the set,and adjust the brightness of the R, G, B single colors tothe following, by rotating G2VR.



Note : Adjust with the tube display turned on.
The background (0IRE) becomes as bright as -5IRE. Adjust to the point where +5IRE is slightly shining.

3) Release the short-circuit in ⑥.

2. 9,300°K Adjustment

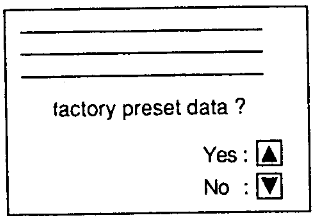
① Input video signal.(10IRE white)

② Press PAGE and set color temperature at 9,300°K.

③ Press BIAS or GAIN and set at bias adjustment mode.

④ Press arrow keys ◀ and ▶ simultaneously, and confirm the following message is displayed.

⑤ Press arrow key ▲. (This will input factory preset data in memory)



factory preset data ?
Yes : ▲
No : ▼

⑥ Press BIAS .

⑦ Press TEST until screen is white signal.

⑧ Set CONT : 80, BRT : 50.

- Press CUT OFF (R)(B) to change to the one color of green.
- Adjust the bias of G and then adjust the brightness so that is becomes Y=0.75 ± 0.25nit.
- Press CUT OFF (R)(B) once again so that 3 colors are displayed.

⑨ Use color analyzer and adjust blue and red so that ;
x : 0.283 ± 0.025
y : 0.297 ± 0.025
Do not adjust green bias.

⑩ Press GAIN.

⑪ Press TEST until screen displays external signal.(100IRE)

⑫ Press RESET and set CONT : 80%, BRT : 50%.

⑬ Use color analyzer and set green and red so that ;
x : 0.283 ± 0.015
y : 0.297 ± 0.015
Do not adjust blue gain.

⑭ Take trackings of ⑥ - ⑭.

⑮ Press MEMORY.

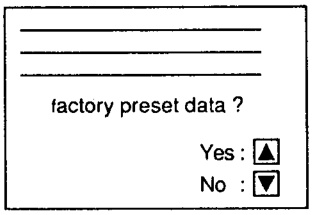
3. 6,500°K Adjustment

① Input video signal.

② Press PAGE and set color temperature at 6,500°K.(10IRE)

③ Press BIAS or GAIN and set at bias adjustment mode.

④ Press arrow keys ◀, ▶ simultaneously and confirm the following message is displayed.



factory preset data ?
Yes : ▲
No : ▼

⑤ Press arrow ▲ key. (This will input factory preset data in memory)

⑥ Press BIAS .

⑦ Press TEST until screen is blank.

⑧ Set CONT : 80, BRT : 50.

- Press the G ADJ KEY and make the decisive bias value 9300°.

⑨ Use color analyzer and adjust blue and red so that ;
x : 0.313 ± 0.025
y : 0.329 ± 0.025
Do not adjust green bias.

⑩ Press GAIN.

⑪ Press TEST until screen displays external signal.(100IRE)

⑫ Use color analyzer and adjust green and red so that ;
x : 0.313 ± 0.015
y : 0.329 ± 0.015
Do not adjust blue gain.

⑬ Take trackings of ⑥ - ⑭.

⑭ Press [MEMORY].

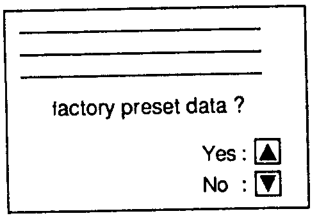
4. 3,200°K Adjustment

① Input video signal.(10IRE)

② Press [PAGE] and set color temperature at 3,200°K.

③ Press [BIAS] or [GAIN] and set at bias adjustment mode.

④ Press arrow keys ◀, ▶ simultaneously and confirm the following messages are displayed.



factory preset data ?
Yes : ▲
No : ▼

⑤ Press arrow key ▲. (This will input factory preset data in memory)

⑥ Press [BIAS].

⑦ Press [TEST] until screen is blank.

⑧ Set CONT : 80, BRT : 50.

• Press the G ADJ KEY and make the decisive bias value 9300°.

⑨ Use color analyzer and adjust blue and red so that ;
x : 0.422 ± 0.025
y : 0.399 ± 0.025
Do not adjust green bias.

⑩ Press [GAIN].

⑪ Press [TEST] until screen displays external signal.

⑫ Press [RESET] and set CONT : 80%, BRT : 50%.

⑬ Use color analyzer and adjust red and blue so that ;
x : 0.422 ± 0.025
y : 0.399 ± 0.025
Do not adjust green gain.

⑭ Take trackings of ⑥ - ⑭.

⑮ Press [MEMORY].

5. Preset Adjustment

① Press [PAGE] and preset color degree.

② Press [GAIN] and set R, G, B gain data at 6,500°K data.

③ Press [BIAS] and set R, G, B bias data at 6,500°K data.

④ Press [MEMORY].

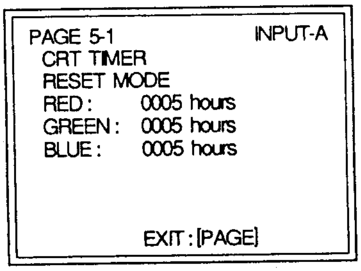
⑤ Press [PAGE] and after setting color temperature at 6,500°K, press [MEMORY].

6. CRT Timer Reset

If you replace the cathode-ray tubes, reset the timer to "0000".

① Press the [PAGE] key five times to display PAGE 5.

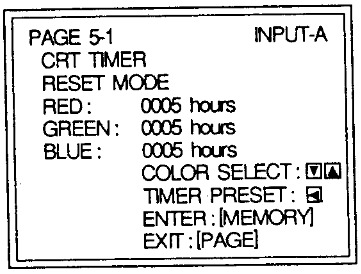
② Select "1. CRT TIMER DISPLAY" with the ▶-key.
The PAGE 5-1 tells how long the cathode-ray tubes were used.



```
PAGE 5-1                INPUT-A
 CRT TIMER
 RESET MODE
 RED:      0005 hours
 GREEN:    0005 hours
 BLUE:     0005 hours

               EXIT:[PAGE]
```

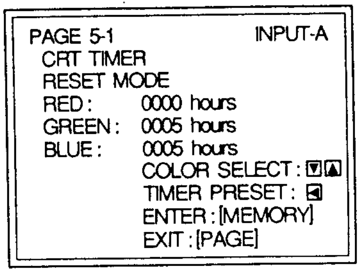
③ Press the ◀ and ▶ keys simultaneously to enter the CRT timer reset mode.



```
PAGE 5-1                INPUT-A
 CRT TIMER
 RESET MODE
 RED:      0005 hours
 GREEN:    0005 hours
 BLUE:     0005 hours
           COLOR SELECT:▼▲
           TIMER PRESET: ◀
           ENTER:[MEMORY]
           EXIT:[PAGE]
```

④ Select the color to reset with the ▲ and ▼ keys.
The selected color blinks.

⑤ Press the ◀ key.
The blinking timer is reset to "0000".



```
PAGE 5-1                INPUT-A
 CRT TIMER
 RESET MODE
 RED:      0000 hours
 GREEN:    0005 hours
 BLUE:     0005 hours
           COLOR SELECT:▼▲
           TIMER PRESET: ◀
           ENTER:[MEMORY]
           EXIT:[PAGE]
```

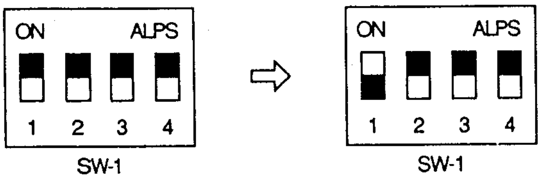
⑥ Repeat steps ④ and ⑤ for other colors.

⑦ Press the MEMORY key.

4-15. Y BOARD, IC4 (EEPROM) REPLACEMENT

4-15-1. Initialization

IC4 (EEPROM) on Y board requires initialization at it replacement. Perform the initialization using following procedures.



1. Turn MAIN POWER SW of the projector off.
2. Remove cabinet, ED bracket and the cover of Y shield case access to Y board.
3. Remove Y board from the projector. Replace the EEPROM. Set ① of SW-1 only to its lower position, then restore it to original position.
4. Disconnect connectors DC-10/DC-11/DC-12 on DC board.
5. Turn MAIN POWER SW of the projector on, then using the commander, POWER ON the projector.
6. Press SW-2 on Y board (flushing of red LED on Y board stops).
7. Press SW-2 on Y board again (red LED on Y board turns on, then turns off after 30 seconds to 1 minute).
8. Using the commander, POWER OFF the projector, then turn MAIN POWER SW off.
9. Connect again connectors DC-10/DC-11/DC-12 on DC board.
10. After STAND BY lamp completely turned off, turn MAIN POWER SW on while holding down SW-2 on Y board (Press and hold down SW-2 for more than 5 seconds after turning MAIN POWER SW on. Red LED on Y board still turns on).

This ends EEPROM initialization.

4-15-2. Generation of Factory Data

No factory data exists in the EEPROM just initialized.
Generate the factory data by performing following adjustment items.

(a) RGB registration data of 8 blocks between 15 kHz to 85 kHz (including VIDEO size/blanking data).
(b) GAIN/BIAS data at preset color temperature of 9300°, 6500° and 3200°.
(c) SHIFT (left/right direction only) data of VIDEO signal
(d) SHIFT (left/right direction only) data of cross-hatch with no input signal

(a) Generation of RGB registration data of 8 blocks between 15 kHz to 85 kHz:

1. Input a signal with f_H = 34kHz to the projector. Perform adjustment of registration at registration-block 4.

   CAUTION:

   Do not perform this adjustment without input signal (if perform the adjustment without input signal, perform it after adjustment in step (d) SHIFT data of cross-hatch with no input signal has been completed).

   NOTE :

   Register block 4 : f_H = 30 to 37 kHz.

3. Then, perform adjustment of blanking on register block 4.

4. Press and hold down MEMORY key to perform STANDARD SAVE.

5. Change f_H of the signal, then perform adjustment of registration and blanking on remaining register blocks 1 to 3 and 5 to 8.

NOTE:

register block NO.	f_H
1	15kHz~19kHz
2	19kHz~24kHz
3	24kHz~30kHz
4	30kHz~37kHz
5	37kHz~45kHz
6	45kHz~55kHz
7	55kHz~66kHz
8	66kHz~85kHz

For method of installation, adjustment of registration/blanking, refer to the installation manual.

b) Generation of W/B data

Perform adjustment on GAIN/BIAS at color temperature of 9300°, 6500° and 3200°.
For the method of color temperature adjustment, refer to "W/B adjustment" on page 56 – 59 of this manual.

c) Adjustment of SHIFT (left/right direction only) data of VIDEO signal.

Connect a VIDEO signal, and select the input.

Press TEST key to display cross hatch pattern. Check that cross hatch pattern is projected at the center of screen. If not, adjust RGB registration data again.

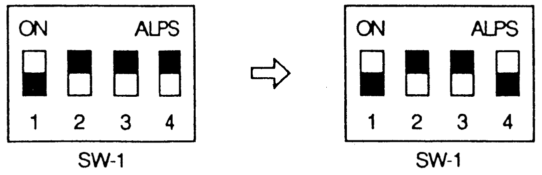
Press BLKG key on the commander, and adjust to display all video at the left and the right sides (Set messages LF: to MIN, and RI: to MAX respectively. These messages are at the lower-left corner of screen).

Press SHIFT key, and adjust the VIDEO to its best position (no up-down adjustment is possible).

Press BLKG key, and adjust VIDEO to its best condition at the left and the right sides of screen. Press MEMORY key.

d) Adjustment of SHIFT (left/right direction only) data of cross-hatch with no input signal

Using the commander, turn POWER to the projector off. Remove Y board. Set ④ of SW-1 to its lower position, then restore it to original position.



Using the commander, turn POWER to the projector on. Select the input to which a signal is connected.
(**NOTE :** Recommend to use a signal of fH = 34 kHz, or so).

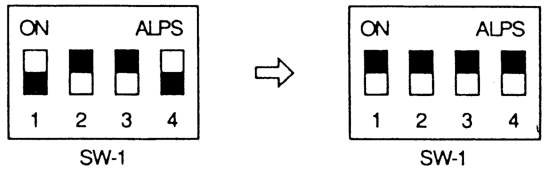
Press TEST key, and mark the center location of cross-hatch on the screen.
Select an input to which no signal is connected. Press SHIFT key followed by TEST key.

5. Using arrow keys (◄, ►), align vertical line of cross-hatch to the position marked in step 3, then press MEMORY key. (Pressing arrow keys ▲ or ▼ changes data in the message V: at the lower-left corner of screen, but does not move the location of cross-hatch. Set this data to 128).

4-15-3. Saving the Factory Data

Save the factory data just adjusted into the EEPROM.

1. While POWER to the projector is on, set ④ and ① of SW-1 to ON position, ④ first, then ①. (red LED turns on at the same time when setting ① of SW-1 to ON position, and turns off after a few seconds).



CAUTION:
Pressing SW-1 before you set ① of SW-1 on Y board to ON position causes all the data to be set to center value (128).

2. Using the commander, turn POWER to the projector off. After more than 5 seconds, POWER ON again. This saves the factory data to the EEPROM.

3. Finally, adjust the blanking of Video signal again and save data into memory.

SECTION 5
SAFETY RELATED ADJUSTMENT

When exchanging ◪ part check HV hold-down circuit, HV regulation circuit, LOW B protector circuit and beam current protector circuit.

⧓ R33, R34 [HV hold-down] PA board.
◪ IC2, Q7, D9, D12, C13, R20, R21, R22, R23, R24, R33, R34, R35, R36, R82, HV BLOCK, PA mount

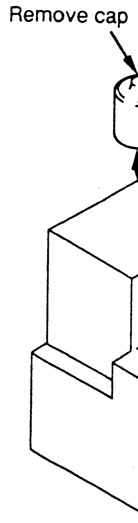
⧓ R131, R132, [HV regulation] PA board
◪ IC1, IC7, IC8, IC9, IC10, IC11, IC12, IC13, R38, R39, R63, R64, R65, R66, R69, R72, R78, R80, R131, R132, X1, HV BLOCK, PA mount, PB mount

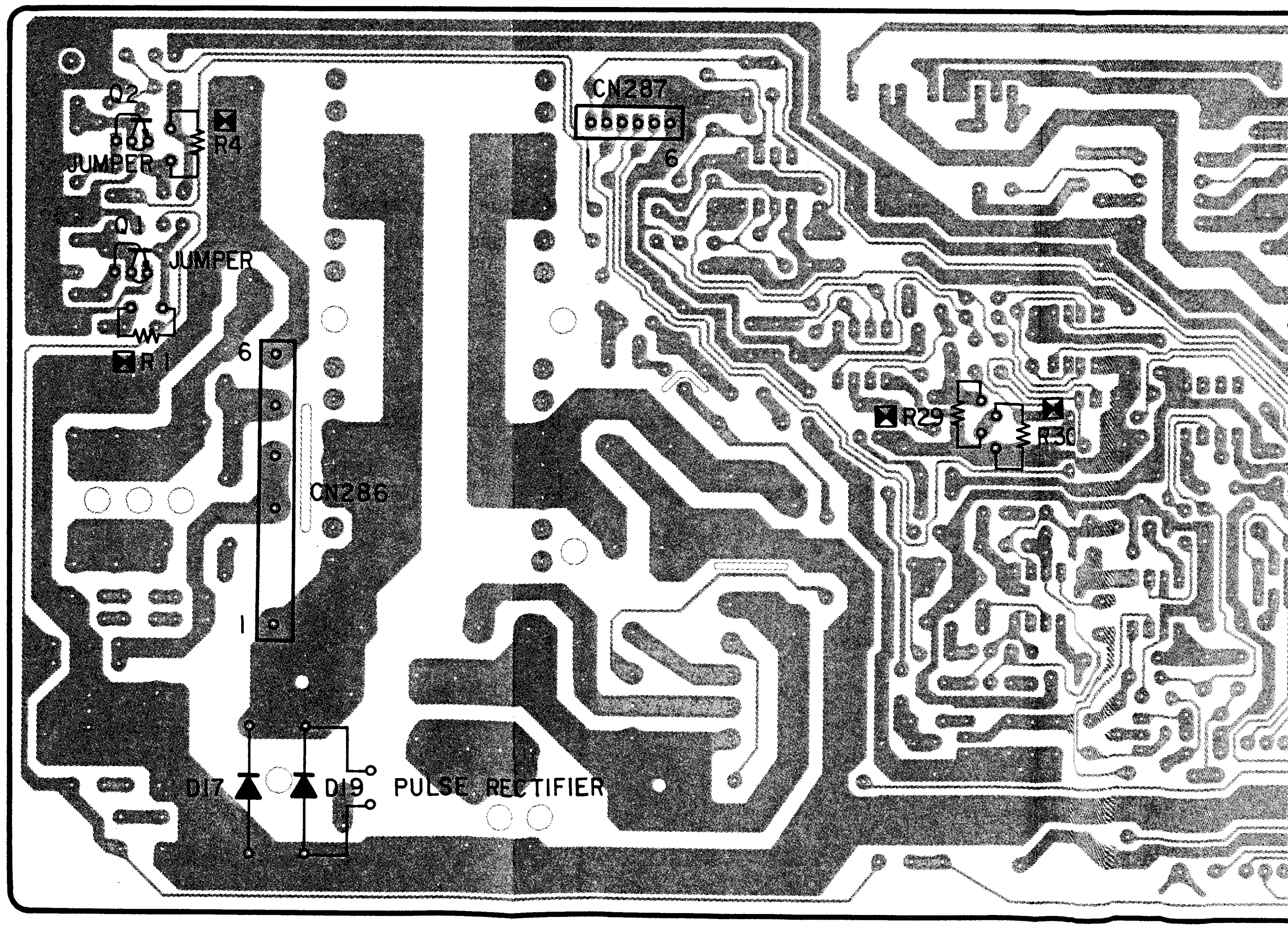
⧓ R29, R30, [LOW B protector] PA board
◪ IC1, IC3, IC5, Q8, D4, D5, D10, D11, R9, R10, R26, R28, R29, R30, R31, R88, R95, PA mount

⧓ R1, R4, [Beam current protector] PA board
◪ IC2, IC3, IC5, Q1, Q2, Q7, Q8, D4, D5, D9, R1, R2, R3, R4 R5, R6, R7, R8, R9, R10, R20, R21, R22, R23, R24, R43, R44, R45, R46, R47, R82, R88, R121, R122, R143, R144, R733 (DA board), PA mount, PB mount

⧓ R33,R34 : HV Hold-down

1. Confirm set power is turned OFF.
2. Connect high voltage meter ⊕ to HV filter vacant terminal and ⊖ to chassis earth.
3. Remove resistance mounted between PA board TP7–TP9. Connect variable resistor and set at 47KΩ.
4. Remove resistance mounted between PA board TP16–TP18.Connect variable resistor and set at 27KΩ.
5. Turn RV1 fully counterclockwise
6. Turn set power ON.
7. Input monoscope signal, and set RGB CUT OFF switch to ON.
8. Turn variable resistor between TP16–TP18 to change resistance value and adjust high voltage to around 34.0±0.3KV.
9. Turn variable resistor between TP7–TP9 to change resistance value, adjust high voltage to around 34.0±0.3KV, and confirm hold-down circuit operates and raster disappears.
10. Turn set power OFF.
11. Remove variable resistor between TP7–TP9. Measure the volume resistance value and solder on the same amount of resistance to R33, R34 (carbon, 1/4W).
12. Next, slightly
TP16–TP18.
13. Turn set power O
14. Turn variable re
high voltage. O
34.0±0.3KV and
15. Next, adjust HV





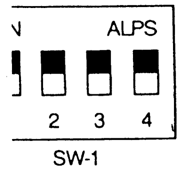
al line of cross-hatch

ss MEMORY key.

; data in the message
ıt does not move the
28).

EPROM.

:t ④ and ① of SW-1
LED turns on at the
ꞌN position, and turns



SW-1

'-1 on Y board to ON
enter value (128).

to the projector off.
ƆN again. This saves

signal again and save

SECTION 5
SAFETY RELATED ADJUSTMENT

When exchanging ◪ part check HV hold-down circuit, HV regulation circuit, LOW B protector circuit and beam current protector circuit.

☒ R33, R34 [HV hold-down] PA board.

◪ IC2, Q7, D9, D12, C13, R20, R21, R22, R23, R24, R33, R34, R35, R36, R82, HV BLOCK, PA mount

☒ R131, R132, [HV regulation] PA board

◪ IC1, IC7, IC8, IC9, IC10, IC11, IC12, IC13, R38, R39, R63, R64, R65, R66, R69, R72, R78, R80, R131, R132, X1, HV BLOCK, PA mount, PB mount

☒ R29, R30, [LOW B protector] PA board

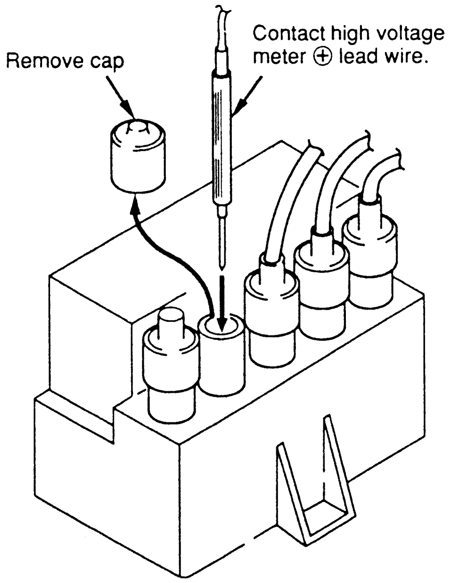
◪ IC1, IC3, IC5, Q8, D4, D5, D10, D11, R9, R10, R26, R28, R29, R30, R31, R88, R95, PA mount

☒ R1, R4, [Beam current protector] PA board

◪ IC2, IC3, IC5, Q1, Q2, Q7, Q8, D4, D5, D9, R1, R2, R3, R4 R5, R6, R7, R8, R9, R10, R20, R21, R22, R23, R24, R43, R44, R45, R46, R47, R82, R88, R121, R122, R143, R144, R733 (DA board), PA mount, PB mount

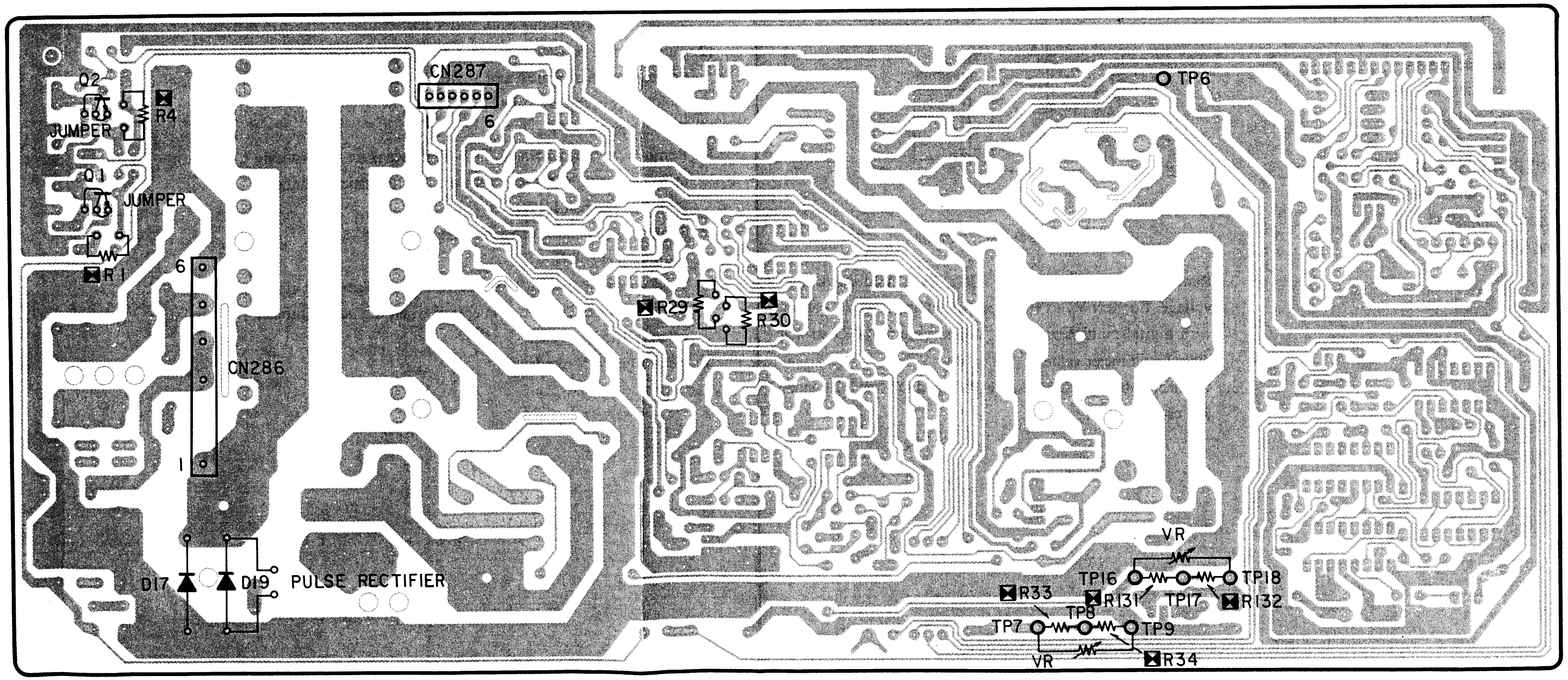
☒ R33,R34 : HV Hold-down

1. Confirm set power is turned OFF.
2. Connect high voltage meter ⊕ to HV filter vacant terminal and ⊖ to chassis earth.
3. Remove resistance mounted between PA board TP7–TP9. Connect variable resistor and set at 47KΩ.
4. Remove resistance mounted between PA board TP16–TP18.Connect variable resistor and set at 27KΩ.
5. Turn RV1 fully counterclockwise
6. Turn set power ON.
7. Input monoscope signal, and set RGB CUT OFF switch to ON.
8. Turn variable resistor between TP16–TP18 to change resistance value and adjust high voltage to around 34.0±0.3KV.
9. Turn variable resistor between TP7–TP9 to change resistance value, adjust high voltage to around 34.0±0.3KV, and confirm hold-down circuit operates and raster disappears.
10. Turn set power OFF.
11. Remove variable resistor between TP7–TP9. Measure the volume resistance value and solder on the same amount of resistance to R33, R34 (carbon, 1/4W).
12. Next, slightly raise volume resistance value between TP16–TP18.
13. Turn set power ON.
14. Turn variable resistor between TP16–TP18 again and raise high voltage. Confirm hold-down circuit operates at 34.0±0.3KV and raster disappears.
15. Next, adjust HV regulation.



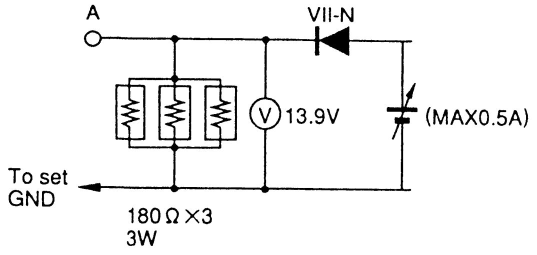
☒ R131, R132 : HV reguration

1. Confirm set power is OFF.
2. Connect high voltage meter ⊕ to HV filter vacant term
and ⊖ to chassis earth.
3. Set variable resistor between PA board TP16–TP18 to 27
4. Turn set power ON.
5. Press CUT-OFF key and cut-off R. G. B.
6. Turn variable resistor between TP16–TP18 to cha
resistance value and adjust high voltage to aro
33.0±0.3KV.
7. Turn set power OFF.
8. Remove variable resistance between TP16–TP18. Mea
the volume resistance value and solder on the same am
of resistance to R131,R132 (carbon, 1/4W).
9. Turn set power ON.
10. Confirm high voltage meter reads 33.0±0.3KV.
11. Turn set power OFF and remove high voltage meter.



R29, R30 : LOW B Protector

- Prepare jig circuit as shown in figure.

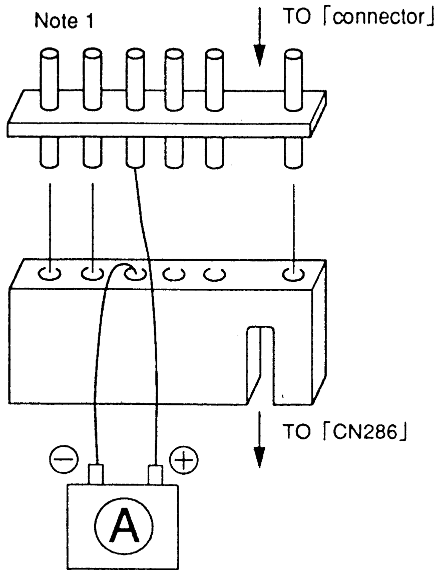


- Adjust until high voltage meter shows 13.9V.

1. Turn set power ON.
2. Contact jig circuit A point to PA board TP6 (12V line) for 0.5–1 sec, and remove immediately. Confirm power turns OFF when doing so.
3. If power does not turn OFF, adjust R29, R30.

R1,R4 : Beam Current Protector

1. Confirm set power is turned OFF.
2. Disconnect PA board connector CN286 and connect jig shown in figure.
3. Short circuit PA board Q1 emitter and collector.
4. Turn set power ON.
5. Input monoscope signal, send beam current by CONTR, BRT and G2VR, and confirm protector circuit operates at under 4700μA and raster is erased.
6. If protector circuit does not operate, adjust R4.
7. Remove jig short–circuiting Q1 emitter and collector.
8. Next, short–circuit Q2 emitter and collector.
9. Turn set power On.
10. Send beam current by CONTR, BRT and G2VR, and confirm protector operates at under 4700μA and raster is erased.
11. When protector does not operate, adjust R1.
12. Remove jig short–circuiting Q2 emitter and collector.



NOTE : Be sure to open pin 3

To check without Using High Voltage Meter

⧓ R33, R34 : HV Hold-doen

1. Use voltage dividing network shown in figure to calibrate detection until.

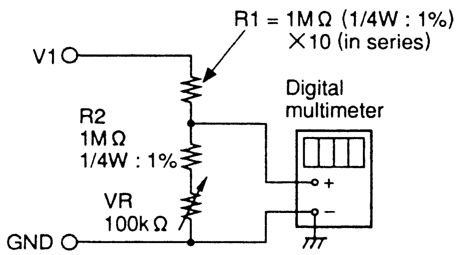
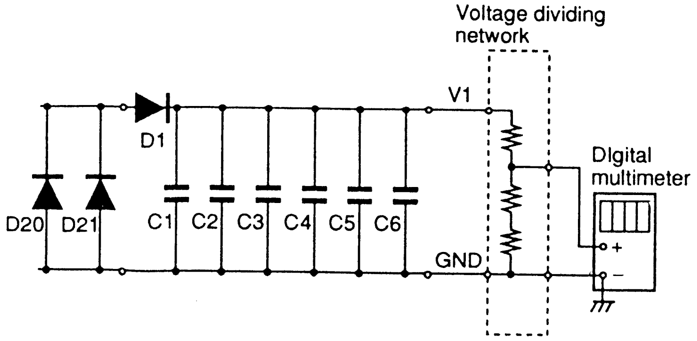


Fig. 1 : Voltage dividing network

2. Remove PA board connector (CN287) to hold down high voltage. Connect V1 to 100V line of set and read V1 voltage with digital multimeter. Next, adjust volume (VR) so that digital multimeter value is 1/10 of V1.
3. Connect pulse rectifier between Pa board D17 or D19 anode and cathode.



Pulse rectifier D1 : VIN-N
C1～C6 : 20000P/1.6KV

4. Confirm set power is turned OFF.
5. Confirm pulse rectifier and voltage dividing network are connected.
6. Remove resistance mounted between PA board TP7–TP9, connect volume and set at 47KΩ.
7. Remove resistance mounted between TP16–TP18, connect volume and set at 27KΩ.
8. Turn RV1 fully counter clockwise.
   Connect PA board connector (CN287).
9. Turn set power ON.
10. Input monoscope signal, and set CONTR and BRT at maximum.
11. Turn variable resistor between TP16–TP18 and adjust until digital multimeter value is 96.5±0.5VDC.
12. Turn variable resistor between TP7–TP9, and confirm hold-down circuit operates and luster is erased when digital multimeter is 96.5±0.5VDC.
13. Turn set power OFF.
14. Remove volume between TP7–TP9. Measure the volume resistance value and solder on the same resistance volume to R33, R34 (carbon 1/4W).
15. Slightly raise volume resistance between TP16–TP18.
16. Turn set power ON.
17. Turn volume between TP16–TP18 and confirm hold–down circuit operates and raster is erased when digital multimeter value is 96.5±0.5VDC.
18. Next, adjust HV regulation.

⧓ R131, R132 : HV Regulation

1. Confirm set power is OFF.
2. Set variable resistor between PA board TP16–TP18 at 27KΩ.
3. Turn set power ON.
4. Press CUT-OFF key to cut –off R, G, B.
5. Turn variable resistor between TP16–TP18 and change resistance value. Confirm digital multimeter value is 83.5±0.5VDC.
6. Turn set power OFF.
7. Remove TP16–TP18 variable resistor. Measure the volume resistance value and solder on the same resistance volume to R131, R132 (carbon 1/4W).
8. Turn set power ON.
9. Confirm digital multimeter value is 83.5±0.5VDC. .
10. Turn set power OFF and remove pulse rectifier.

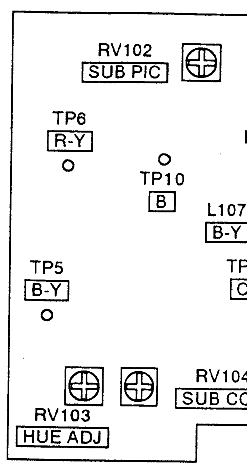
Confirmation when replacing Power Supply Block

Confirm that the voltage of +BMax, voltage is within the standard value when replacing Power Supply Block.

Note :
Fit DY (deflection yoke)
basic adjustment, electric

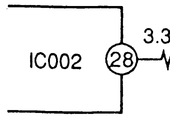
6-1. BA BOARD AD
(Add X board, Comple

BA BOARD (COMPONE

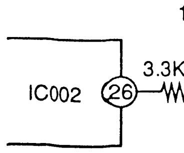


REF. OSC Adjustmen

1. Input PAL color bar.
2. Adjust CT102 so that
3. Connect 3.3KΩ to IC
   PAL forced MODE.



4. Ground IC002 pin ⑰
5. Adjust CT102 until sc
6. Disconnect IC002 pin
7. Input NTSC3.58 color
8. Adjust CT101 so that
9. Connect 3.3KΩ to IC
   NTSC3.58 forced MO



:or J

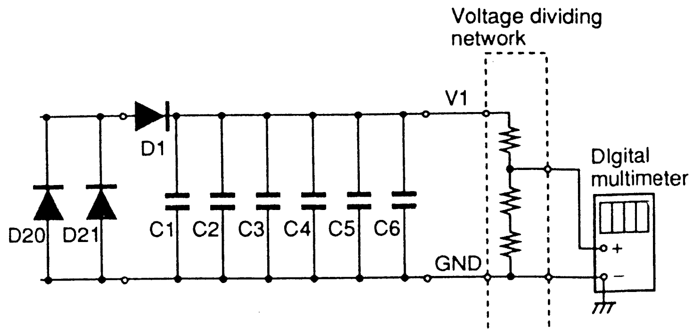
J

to calibrate

)

down high
d V1 voltage
(VR) so that

r D19 anode



Pulse rectifier D1 : VIN-N
C1~C6 : 20000P/1.6KV

4. Confirm set power is turned OFF.
5. Confirm pulse rectifier and voltage dividing network are connected.
6. Remove resistance mounted between PA board TP7–TP9, connect volume and set at 47KΩ.
7. Remove resistance mounted between TP16–TP18, connect volume and set at 27KΩ.
8. Turn RV1 fully counter clockwise.
   Connect PA board connector (CN287).
9. Turn set power ON.
10. Input monoscope signal, and set CONTR and BRT at maximum.
11. Turn variable resistor between TP16–TP18 and adjust until digital multimeter value is 96.5±0.5VDC.
12. Turn variable resistor between TP7–TP9, and confirm hold-down circuit operates and luster is erased when digital multimeter is 96.5±0.5VDC.
13. Turn set power OFF.
14. Remove volume between TP7–TP9. Measure the volume resistance value and solder on the same resistance volume to R33, R34 (carbon 1/4W).
15. Slightly raise volume resistance between TP16–TP18.
16. Turn set power ON.
17. Turn volume between TP16–TP18 and confirm hold-down circuit operates and raster is erased when digital multimeter value is 96.5±0.5VDC.
18. Next, adjust HV regulation.

⊠ R131, R132 : HV Regulation

1. Confirm set power is OFF.
2. Set variable resistor between PA board TP16–TP18 at 27KΩ.
3. Turn set power ON.
4. Press CUT-OFF key to cut -off R, G, B.
5. Turn variable resistor between TP16–TP18 and change resistance value. Confirm digital multimeter value is 83.5±0.5VDC.
6. Turn set power OFF.
7. Remove TP16–TP18 variable resistor. Measure the volume resistance value and solder on the same resistance volume to R131, R132 (carbon 1/4W).
8. Turn set power ON.
9. Confirm digital multimeter value is 83.5±0.5VDC. .
10. Turn set power OFF and remove pulse rectifier.

Confirmation when replacing Power Supply Block

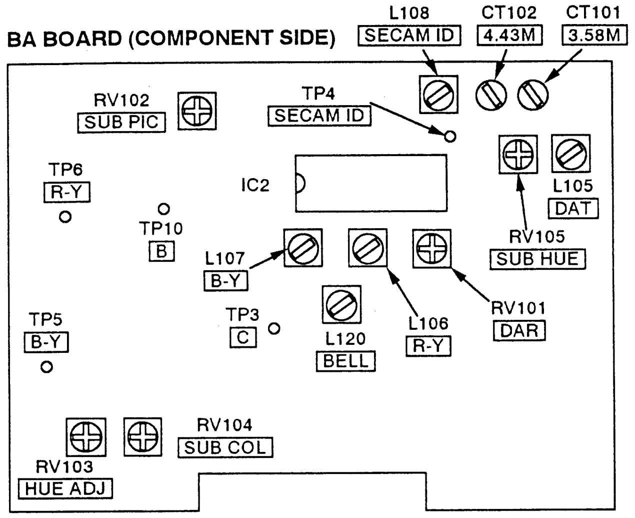
Confirm that the voltage of +BMax, voltage is within the standard value when replacing Power Supply Block.

SECTION 6
CIRCUIT ADJUSTMENTS

Note :

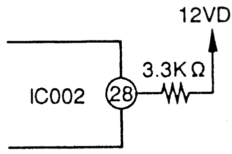
Fit DY (deflection yoke) tightly to picture tube when conducting basic adjustment, electric adjustment or exchanging picture tube.

6-1. BA BOARD ADJUSTMENT
(Add X board, Complete (A-1449-937-A) to extend)

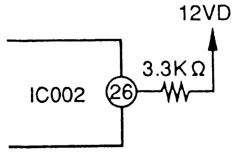


REF. OSC Adjustment (CT101, CT102)

1. Input PAL color bar.
2. Adjust CT102 so that the display becomes colored.
3. Connect 3.3KΩ to IC002 pin ㉘, apply 12VDC and set at PAL forced MODE.



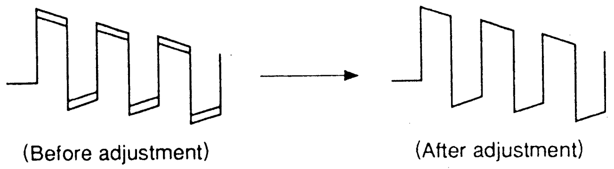
4. Ground IC002 pin ⑰ and turn color-killer OFF.
5. Adjust CT102 until screen movement slows.
6. Disconnect IC002 pin ⑰ grounding.
7. Input NTSC3.58 color bar.
8. Adjust CT101 so that the display becomes colored.
9. Connect 3.3KΩ to IC002 pin ㉖, apply 12VDC and set at NTSC3.58 forced MODE.



10. Ground IC002 pin ⑰ and turn color-killer OFF.
11. Adjust CT101 until screen movement slows.
12. Disconnect 3.3KΩ connected to IC.
13. Disconnect IC002 pin ⑰ grounding.

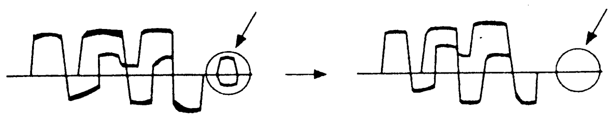
1H DELAY LINE Adjustment

1. Input PAL color bar.
2. Connect oscilloscope to TP-5 and view wave from in H block.


(Before adjustment)
(After adjustment)

3. Connect 3.3KΩ to IC002 pin ㉘, apply 12VDC and set at PAL forced MODE.
4. Adjust L105 and minimize double line part of wave.
5. Input PAl special color bar.
6. Adjust RV101 until wave ANTI PAL is at 0 – level.

∗ RV101 and L103 influence each other. Repeat adjustment until both condition are satisfied.

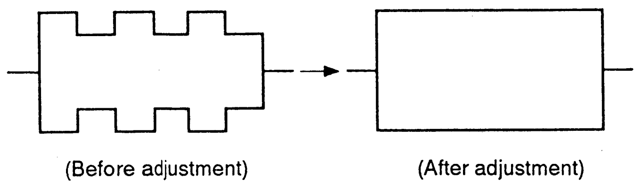

(Before adjustment)
(After adjustment)

SECAM ID Adjustment (L108)

1. Input SECAM color bar.
2. Connect 3.3KΩ to IC002 pin ㉗ , apply 12VDC and set at SECAM forced MODE.
3. Connect digital multimeter to TP4. (input impedance over 50MΩ)
4. Adjust L108 level to maximum.

BELL Filter Adjustment (L120)

1. Input SECAM color bar.
2. Connect 3.3KΩ to IC002 pin ㉗, apply 12VDC and set at PAL forced MODE.
3. Connect oscilloscope to TP3 and view wave from of H block.
4. Adjust L120 until wave is flat.



∗ Track L120 and L108.

SECAM DISCRI Adjustment (L106, L107)

1. Input SECAM color bar.
2. Connect 3.3KΩ to IC002 pin ㉗, apply 12VDC and set at SECAM forced MODE.
3. Connect oscilloscope to TP6 and view wave from of H block.

Fig. 1

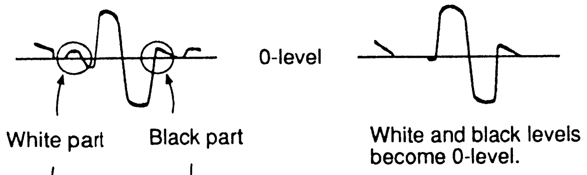
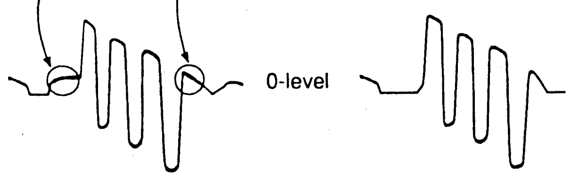


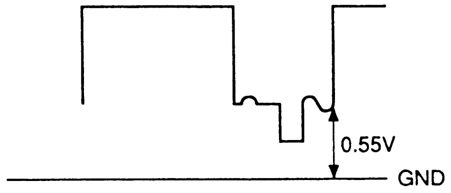
Fig. 2



4. Adjust L106 until white and black part of TP6 wave become 0 – level. (Fig. 1)
5. Connect oscilloscope to TP5 and view wave from of H block.
6. Adjust L107 until white and black part of TP5 wave become 0 – level. (Fig. 2)

SUB BRIGHT Confirment

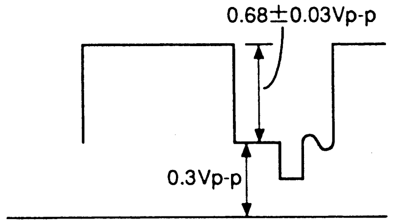
1. Input blank signal (100IRE)
2. Connect oscilloscope to B board TP5 and view wave from of H block.



3. Confirm pedestal level is 0.55±0.02V.

SUB PICTURE Adjustment

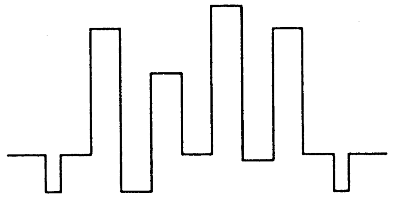
1. Input blank signal (100IRE).
2. Connect oscilloscope to B board TP5 and view wave from of H block.



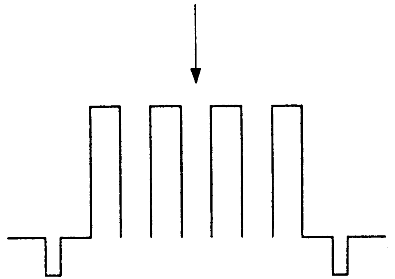
3. Adjust RV102 until pedestal to peak is 0.68±0.03Vp-p.

HUE, SUB COLOR, SUB HUE Adjustment (RV103, RV104, RV105)

1. Input PAL color bar signal.
2. Connect oscilloscope to TP10 and view wave from of H block.
3. Adjust RV103 (HUE) and RV104 (SUB COL) until wave is flat.



(Before adjustment)

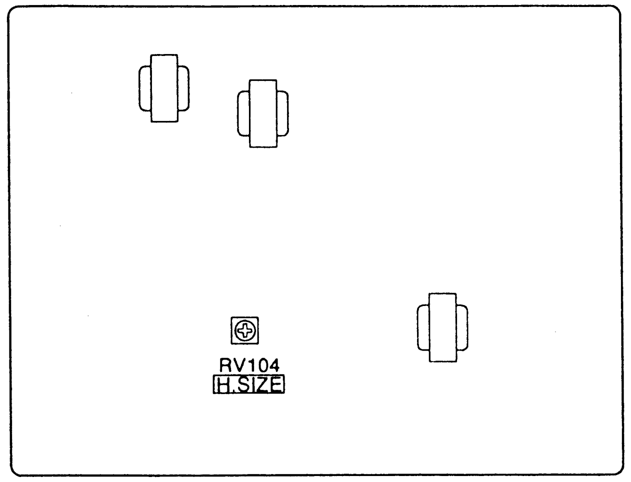


(After adjustment)

4. Input NTSC3.58 color bar.
5. Adjust RV105 (SUB HUE) until wave is flat.

6-2. E BOARD ADJUSTMENT

E BOARD (COMPONENT SIDE)

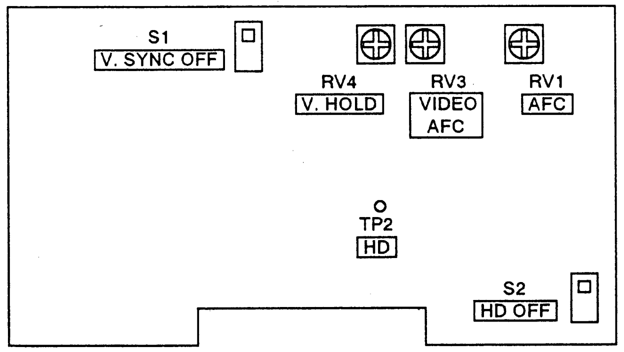


H. SIZE Adjustment (RV104)

1. Input monoscope signal.
2. Press remote commander [SIZE] key, and then arrow key ▶ to set H. SIZE at maximum.
3. Turn RV104 and adjust to frame 15.

6-3. DA BOARD ADJUSTMENT
(Add X board, Complete to extend)

DA BOARD(COMPONENT SIDE)



AFC Adjustment (RV1)

1. Input approximately 30kHz R, G, B signal.
2. Turn RV1 full clockwise.
3. Press S2 (HD OFF) switch and set at image free running state.
4. Turn RV1 counter clockwise a little at a time and stop image.
5. Connect TP2 to frequency counter.
6. Read frequency counter indicated value while pressing S1 switch.
   The value is f1.
7. Turn RV1 full counter clockwise.
8. Press S2 switch and set at image free running state.
9. Turn RV1 to clockwise a little at a time and stop image.
10. Read frequency counter indicated value while pressing S2 switch.

The value is f2

11. Adjust $\frac{f1+f2}{2}$±200Hz value with RV1.

Video AFC Adjustment (RV3)

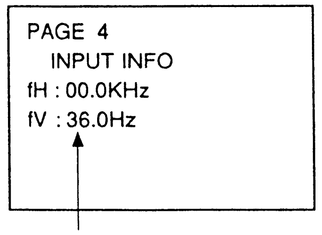
1. Input video signal. (f_H=15.75kHz, fv=60Hz)
2. Turn RV3 (video AFC) full clockwise.
3. Press S2 (HD OFF) switch and set at image free running state.
4. Turn RV3 to left a little at a time and stop image.
5. Connect frequency counter to TP2.
6. Read frequency counter indicated value while pressing S2 switch.
   The value is f1.
7. Turn RV3 full counter clockwise.
8. Press S2 and set at image free running state.
9. Turn RV3 right a little at a time and stop image.
10. Read frequency counter indicated value while pressing S2.

The value is f12

11. Adjust $\frac{f1+f2}{2}$±200Hz value with RV3.

V HOLD Adjustment (RV4)

1. Set at No-signal state.
2. Press remote commander PAGE key and display PAGE4.
3. Press S1 (V SYNC OFF)
4. Adjust until screen display fv is 36±2Hz with RV4 (V HOLD).



PAGE 4
INPUT INFO
fH : 00.0KHz
fV : 36.0Hz

Adjust RV4 to become 36.0±2Hz

7-1. CIRC

. time and stop image.

ue while pressing S1

nning state.
: and stop image.
ue while pressing S2

0Hz)

.t image free running

op image.

ue while pressing S2

state.
op image.
: while pressing S2.

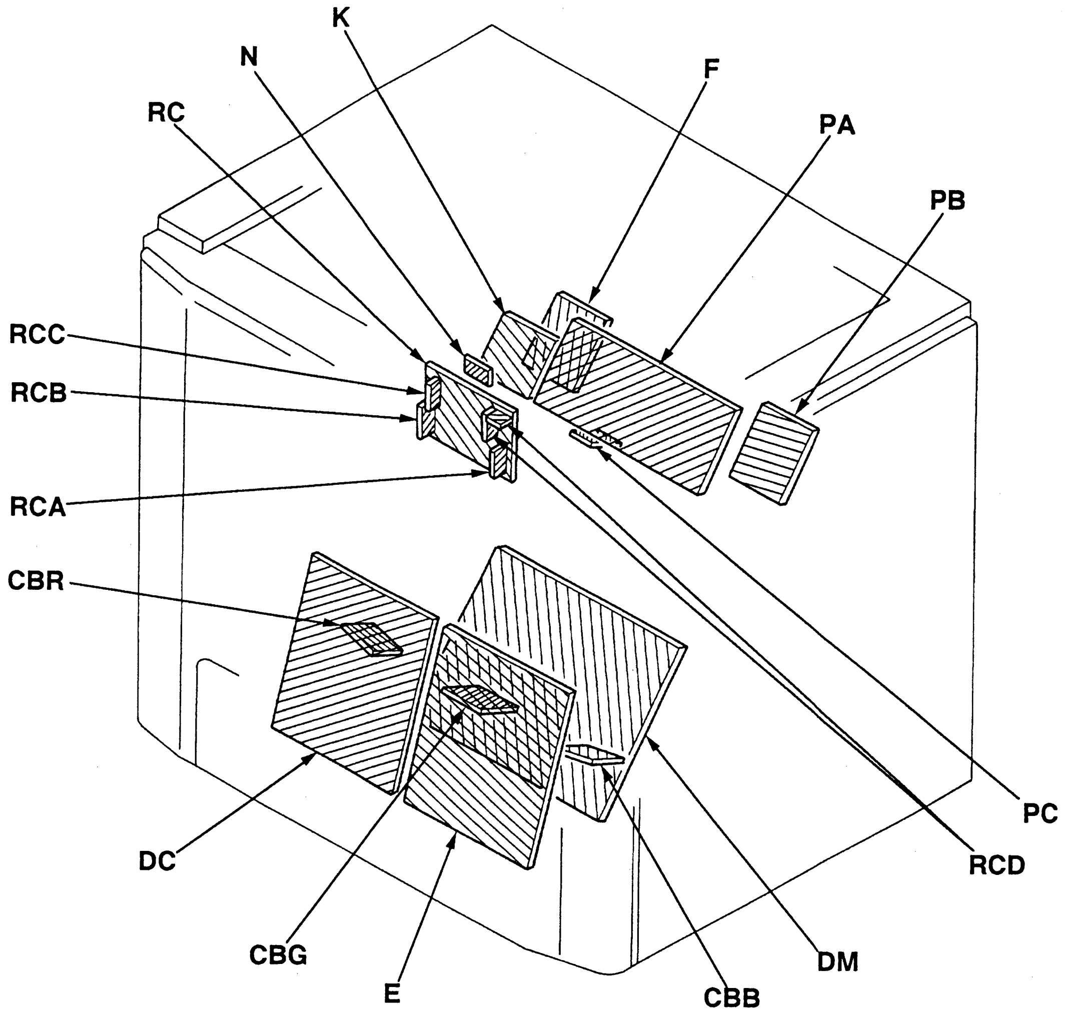
and display PAGE4.

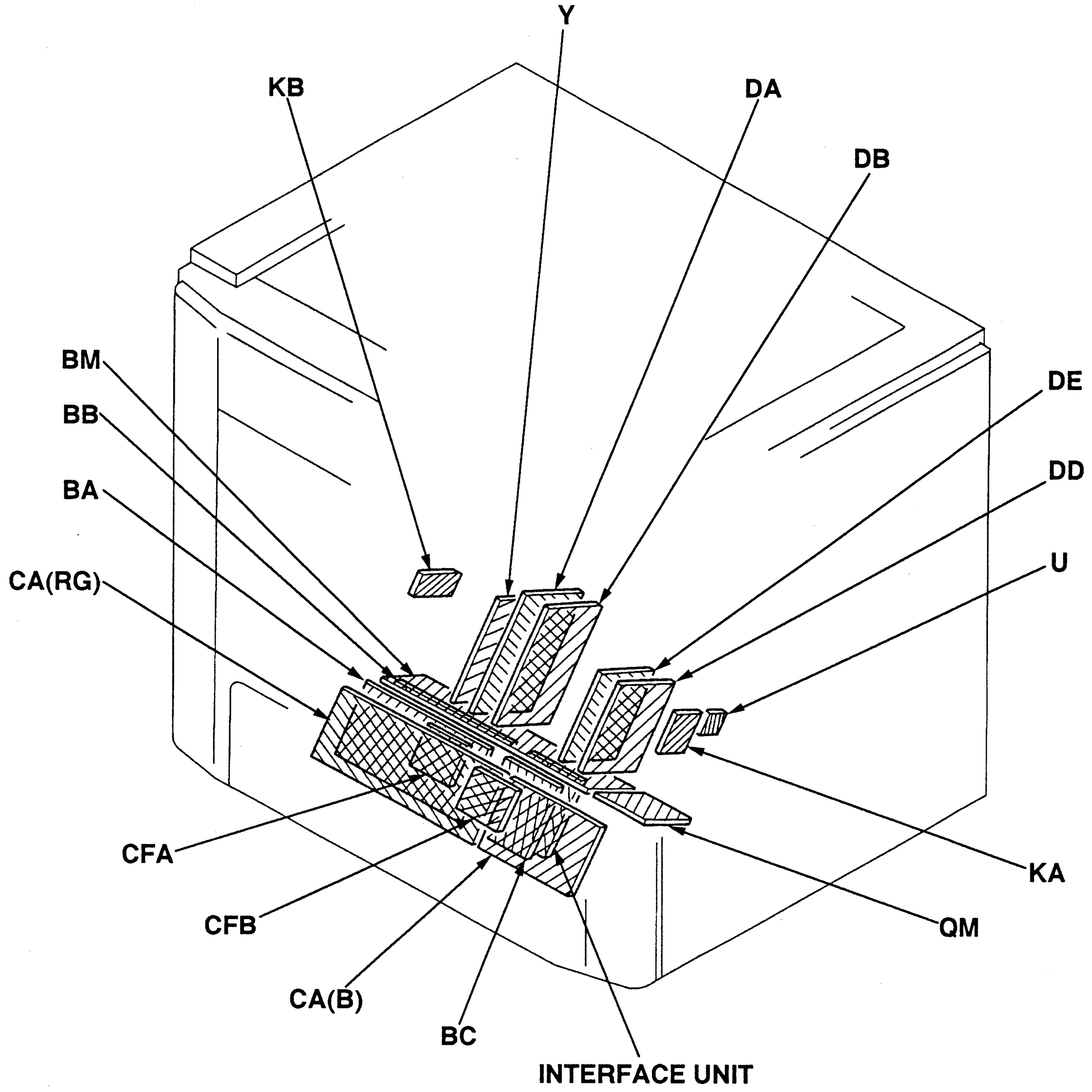
5±2Hz with RV4 (V

)±2Hz

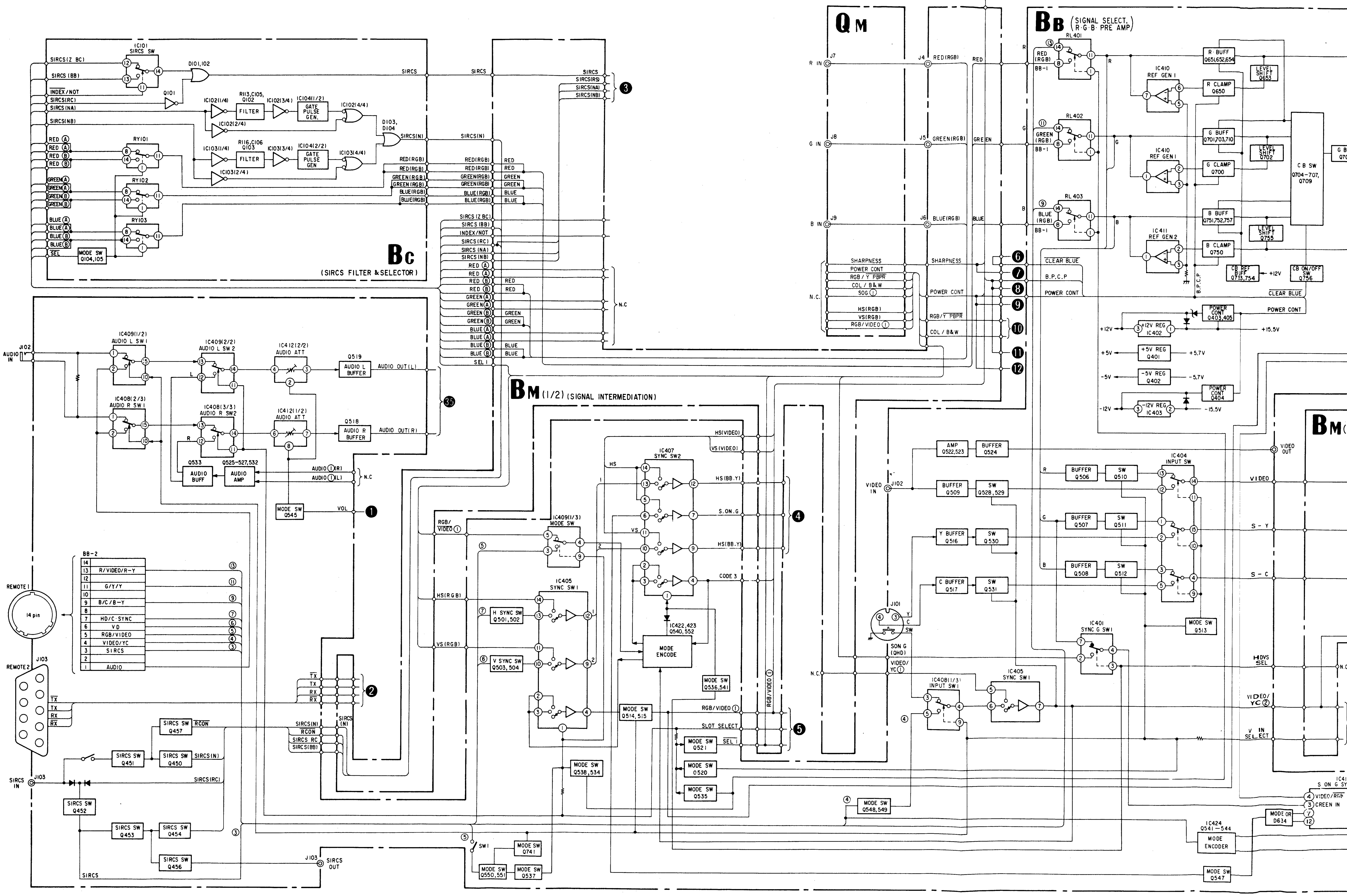
SECTION 7
DIAGRAMS

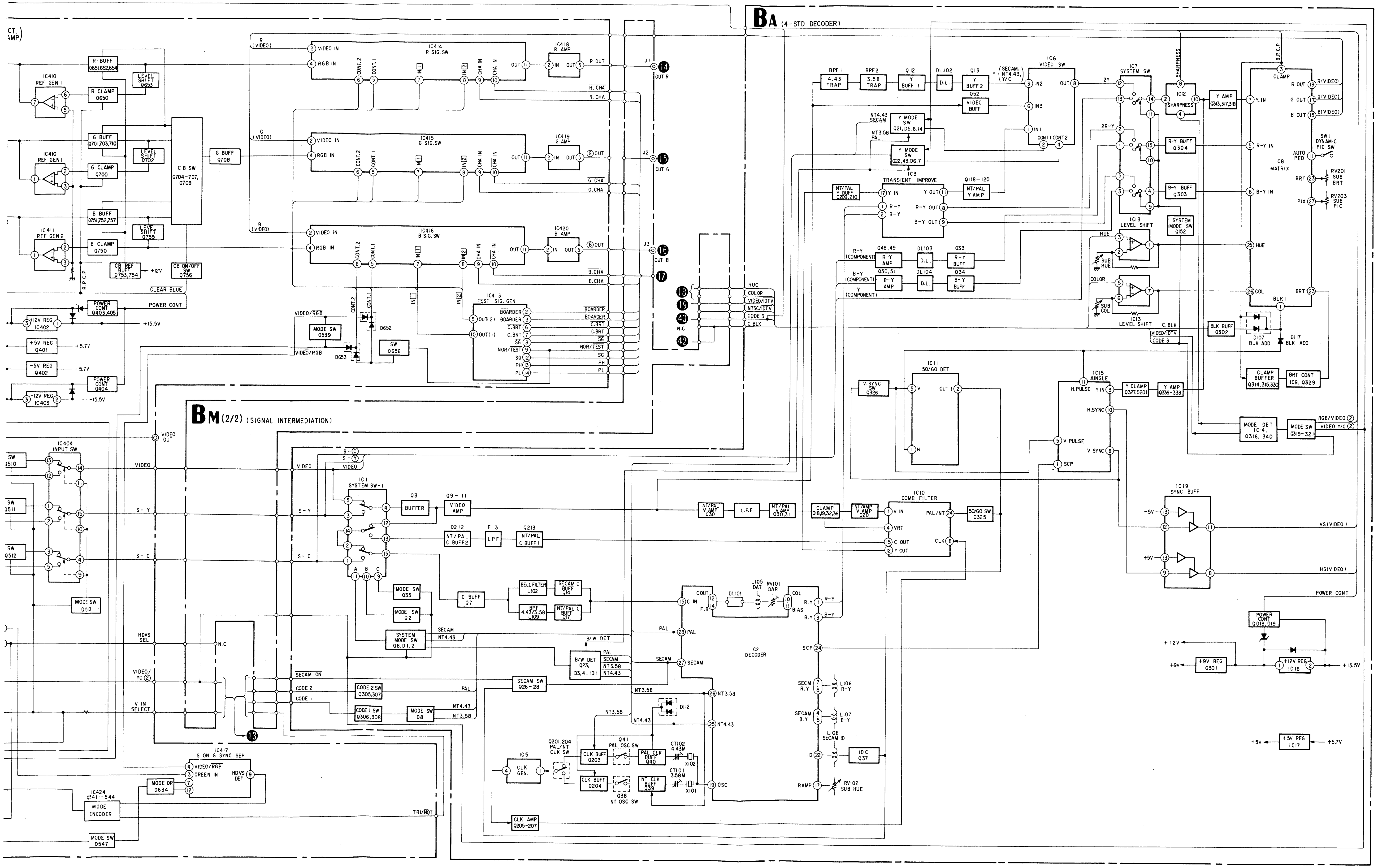
7-1. CIRCUIT BOARDS LOCATION


K
N
F
RC
PA
PB
RCC
RCB
RCA
CBR
PC
RCD
DC
CBG
E
CBB
DM

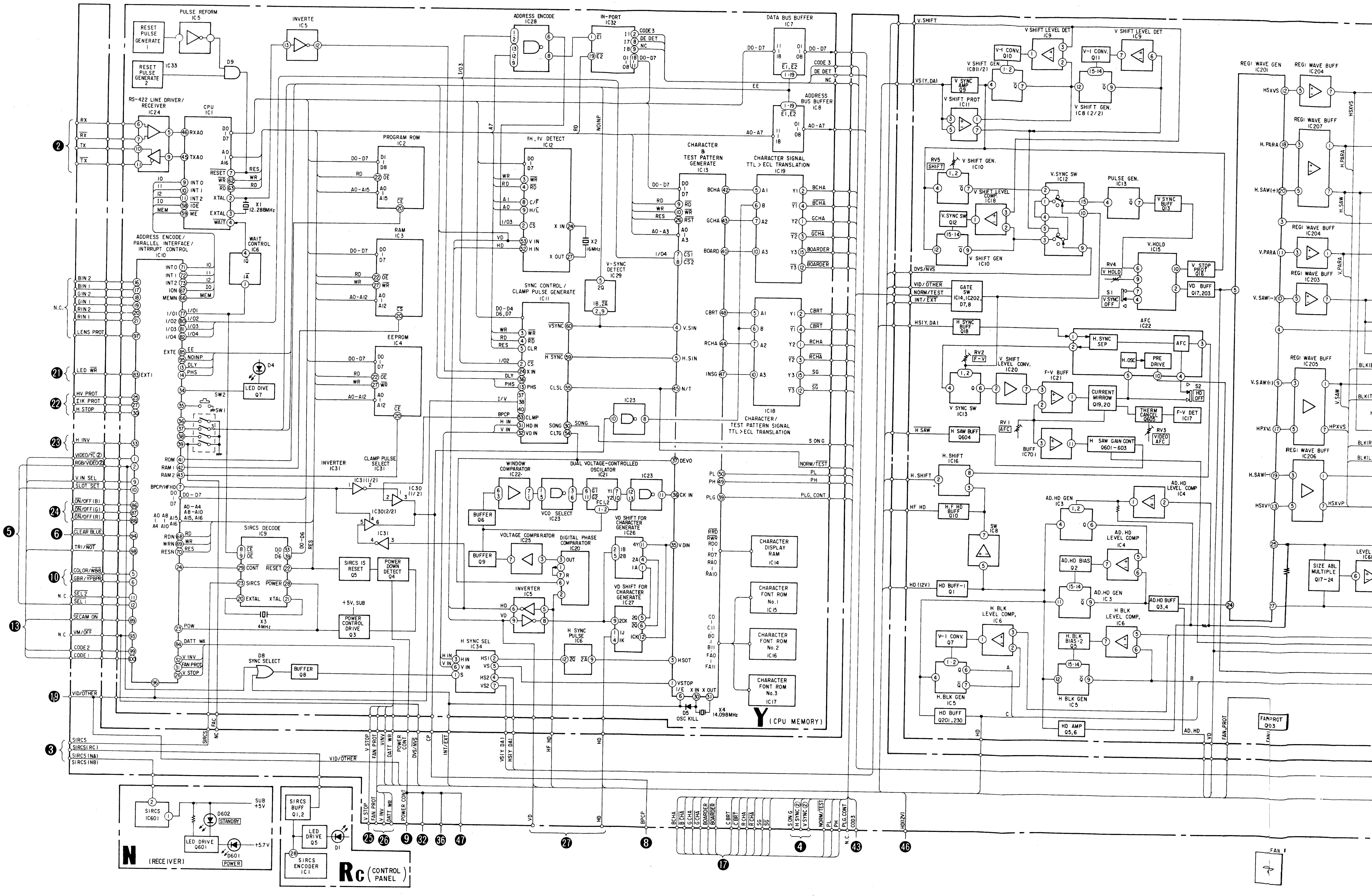

Y
KB
DA
DB
BM
BB
DE
BA
DD
CA(RG)
U
CFA
KA
CFB
QM
CA(B)
BC
INTERFACE UNIT

7-2. BLOCK DIAGRAMS (1)


Bc
(SIRCS FILTER & SELECTOR)
IC101 SIRCS SW
D101,102
Q101
IC102(1/4)
R113,C105, Q102
FILTER
IC102(3/4)
IC104(1/2) GATE PULSE GEN.
IC102(4/4)
D103, D104
IC102(2/4)
IC103(1/4)
R116,C106 Q103
IC103(3/4)
IC104(2/2) GATE PULSE GEN
IC103(4/4)
IC103(2/4)
RY101
RY102
RY103
MODE SW Q104,105
SIRCS(Z BC)
SIRCS (BB)
INDEX/NOT
SIRCS(RC)
SIRCS(NA)
SIRCS(NB)
SIRCS(N)
RED(RGB)
GREEN(RGB)
BLUE(RGB)
SEL
N.C
AUDIO IN
J102
IC409(1/2) AUDIO L SW1
IC409(2/2) AUDIO L SW 2
IC412(2/2) AUDIO ATT
Q519 AUDIO L BUFFER
AUDIO OUT(L)
IC408(2/3) AUDIO R SW1
IC408(3/3) AUDIO R SW2
IC412(1/2) AUDIO ATT
Q518 AUDIO R BUFFER
AUDIO OUT(R)
Q533 AUDIO BUFF
Q525-527,532 AUDIO AMP
MODE SW Q545
VOL
REMOTE1
14 pin
BB-2
R/VIDEO/R-Y
G/Y/Y
B/C/B-Y
HD/C SYNC
VD
RGB/VIDEO
VIDEO/YC
SIRCS
AUDIO
REMOTE2
J103
TX
RX
SIRCS SW Q457
RCON
SIRCS SW Q451
SIRCS SW Q450
SIRCS IN
SIRCS SW Q452
SIRCS SW Q453
SIRCS SW Q454
SIRCS SW Q456
SIRCS OUT
BM (1/2) (SIGNAL INTERMEDIATION)
RGB/VIDEO
IC409(1/3) MODE SW
IC405 SYNC SW1
H SYNC SW Q501,502
V SYNC SW Q503,504
HS(RGB)
VS(RGB)
IC407 SYNC SW2
HS(VIDEO)
VS(VIDEO)
HS(BB.Y)
S.ON.G
CODE 3
IC422,423 Q540,552
MODE ENCODE
MODE SW Q536,541
MODE SW Q514,515
SLOT SELECT
MODE SW Q521
MODE SW Q520
MODE SW Q535
MODE SW Q538,534
SW1
MODE SW Q741
MODE SW Q550,551
MODE SW Q537
QM
R IN J7
G IN J8
B IN J9
J4 RED(RGB)
J5 GREEN(RGB)
J6 BLUE(RGB)
SHARPNESS
POWER CONT
RGB/Y PBPR
COL/B&W
SOG
HS(RGB)
VS(RGB)
RGB/VIDEO
BB (SIGNAL SELECT, R·G·B PRE AMP)
RL401
RL402
RL403
BB-1
IC410 REF GEN 1
IC411 REF GEN 2
R BUFF Q651,652,654
R CLAMP Q650
LEVEL SHIFT Q653
G BUFF Q701,703,710
G CLAMP Q700
LEVEL SHIFT Q702
B BUFF Q751,752,757
B CLAMP Q750
LEVEL SHIFT Q755
C B SW Q704-707, Q709
CB REF BUFF Q753,754
CB ON/OFF SW Q756
CLEAR BLUE
B.P.C.P
POWER CONT
POWER CONT Q403,405
+12V REG IC402
+5V REG Q401
-5V REG Q402
-12V REG IC403
POWER CONT Q404
+15.5V
+5.7V
-5.7V
-15.5V
AMP Q522,523
BUFFER Q524
VIDEO OUT
VIDEO IN J102
BUFFER Q509
SW Q528,529
Y BUFFER Q516
SW Q530
C BUFFER Q517
SW Q531
J101
SON G (QHD)
VIDEO/YC
IC408(1/3) INPUT SW1
IC405 SYNC SW1
MODE SW Q548,549
BUFFER Q506
SW Q510
BUFFER Q507
SW Q511
BUFFER Q508
SW Q512
IC404 INPUT SW
MODE SW Q513
IC401 SYNC G SW1
VIDEO
S-Y
S-C
HDVS SEL
VIDEO/YC
V IN SELECT
BM
IC424 Q541-544 MODE ENCODER
MODE OR D634
S ON G SY
VIDEO/RGB
GREEN IN
MODE SW Q547


BA (4-STD DECODER)
BM (2/2) (SIGNAL INTERMEDIATION)
IC410 REF GEN 1
IC411 REF GEN 2
R BUFF Q651,652,654
R CLAMP Q650
G BUFF Q701,703,710
G CLAMP Q700
B BUFF Q751,752,757
B CLAMP Q750
LEVEL SHIFT Q653
LEVEL SHIFT Q702
LEVEL SHIFT Q755
C B SW Q704-707, Q709
G BUFF Q708
CB REF BUFF Q753,754
CB ON/OFF SW Q756
CLEAR BLUE
B.P.C.P
POWER CONT Q403,405
POWER CONT
+12V REG IC402
+15.5V
+5V REG Q401
+5.7V
-5V REG Q402
-5.7V
POWER CONT Q404
-12V REG IC403
-15.5V
IC414 R SIG.SW
IC415 G SIG.SW
IC416 B SIG.SW
IC418 R AMP
IC419 G AMP
IC420 B AMP
R (VIDEO)
G (VIDEO)
B (VIDEO)
VIDEO IN
RGB IN
CONT.2
CONT.1
IN1
IN2
CHA IN
CHA IN
OUT
R OUT
G OUT
B OUT
J1
J2
J3
OUT R
OUT G
OUT B
R.CHA
G.CHA
B.CHA
IC413 TEST SIG. GEN
BOARDER
C.BRT
SG
NOR/TEST
PH
PL
OUT(2)
OUT(1)
VIDEO/RGB
MODE SW Q539
D652
D653
SW Q656
HUC
COLOR
VIDEO/IDTV
NTSC/IDTV
CODE 3
C.BLK
N.C.
BPF 1 4.43 TRAP
BPF 2 3.58 TRAP
Q12 Y BUFF 1
DL102 D.L.
Q13 Y BUFF 2
Q52 VIDEO BUFF
Y (SECAM, NT4.43, Y/C)
IC6 VIDEO SW
IN2
IN3
IN1
CONT1 CONT2
NT4.43 SECAM
NT3.58 PAL
Y MODE SW Q21, D5,6,14
Y MODE SW Q22,43,D6,7
NT/PAL Y BUFF Q209,210
IC3 TRANSIENT IMPROVE
Y IN
R-Y
B-Y
Y OUT
R-Y OUT
B-Y OUT
Q118-120 NT/PAL Y AMP
R-Y (COMPONENT)
B-Y (COMPONENT)
Y (COMPONENT)
Q48,49 R-Y AMP
Q50,51 B-Y AMP
DL103 D.L.
DL104 D.L.
Q33 R-Y BUFF
Q34 B-Y BUFF
IC7 SYSTEM SW
2Y
2R-Y
SHARPNESS
IC12 SHARPNESS
Y AMP Q313,317,318
R-Y BUFF Q304
B-Y BUFF Q303
SYSTEM MODE SW Q152
IC13 LEVEL SHIFT
HUE
SUB HUE
COLOR
SUB COL
C.BLK
VIDEO/IDTV
CODE 3
BLK BUFF Q302
D107 BLK ADD
D117 BLK ADD
IC8 MATRIX
CLAMP
Y.IN
R-Y IN
B-Y IN
HUE
COL
BLK1
R OUT
G OUT
B OUT
R(VIDEO)
G(VIDEC)
B(VIDEO)
SW1 DYNAMIC PIC SW
AUTO PED
BRT
PIX
RV201 SUB BRT
RV203 SUB PIC
CLAMP BUFFER Q314,315,330
BRT CONT IC9, Q329
IC11 50/60 DET
V.SYNC SW Q326
IC15 JUNGLE
H.PULSE
Y IN
H.SYNC
V PULSE
V SYNC
SCP
Y CLAMP Q327,D201
Y AMP Q336-338
MODE DET IC14, Q316, 340
MODE SW Q319-321
RGB/VIDEO
VIDEO Y/C
IC19 SYNC BUFF
+5V
VS(VIDEO)
HS(VIDEO)
POWER CONT
POWER CONT Q018, 019
+12V
+9V
+9V REG Q301
+12V REG IC16
+15.5V
+5V REG IC17
+5V
+5.7V
VIDEO OUT
IC404 INPUT SW
SW Q510
SW Q511
SW Q512
VIDEO
S-Y
S-C
MODE SW Q513
HDVS SEL
VIDEO/YC
V IN SELECT
N.C.
IC1 SYSTEM SW-1
Q3 BUFFER
Q9-11 VIDEO AMP
Q212 NT/PAL C BUFF2
FL3 LPF
Q213 NT/PAL C BUFF 1
MODE SW Q35
MODE SW Q2
SYSTEM MODE SW Q8,D1,2
SECAM
NT4.43
SECAM ON
CODE 2
CODE 1
CODE 2 SW Q305,307
CODE 1 SW Q306,308
MODE SW D8
PAL
NT3.58
C BUFF Q7
BELL FILTER L102
SECAM C BUFF Q14
BPF 4.43/3.58 L109
NT/PAL C BUFF Q17
NT/PAL V AMP Q30
L.P.F
NT/PAL V AMP Q30,31
CLAMP Q18,19,32,36
NT/AMP V AMP Q20
IC10 COMB FILTER
V IN
VRT
C OUT
Y OUT
PAL/NT
CLK
50/60 SW Q325
B/W DET
B/W DET Q23, D3,4,101
IC2 DECODER
COUT
C.IN
F.B
DL101
L105 DAT
RV101 DAR
COL
BIAS
R.Y
B.Y
SECAM
PAL
SCP
SECM R.Y
SECAM B.Y
L106 R-Y
L107 B-Y
L108 SECAM ID
ID
IDC Q37
RAMP
RV102 SUB HUE
NT3.58
NT4.43
OSC
SECAM SW Q26-28
D112
IC5 CLK GEN.
Q201,204 PAL/NT CLK SW
Q41 PAL OSC SW
CLK BUFF Q203
CLK BUFF Q204
PAL CLK BUFF Q40
NT CLK BUFF Q39
Q38 NT OSC SW
CT102 4.43M
X102
CT101 3.58M
X101
CLK AMP Q205-207
IC417 S ON G SYNC SEP
VIDEO/RGB
SCREEN IN
HDVS DET
MODE OR D634
IC424 Q541-544 MODE ENCODER
TRI/NOT
MODE SW Q547
⑬ ⑭ ⑮ ⑯ ⑰ ⑱ ⑲ ㊸ ㊷

BLOCK DIAGRAMS (2)


RESET PULSE GENERATE 1
PULSE REFORM IC5
RESET PULSE GENERATE 2 IC33
INVERTE IC5
ADDRESS ENCODE IC28
IN-PORT IC32
DATA BUS BUFFER IC7
ADDRESS BUS BUFFER IC8
RS-422 LINE DRIVER/RECEIVER IC24
CPU IC1
X1 12.288MHz
PROGRAM ROM IC2
RAM IC3
EEPROM IC4
fH, fV DETECT IC12
X2 16MHz
V-SYNC DETECT IC29
CHARACTER & TEST PATTERN GENERATE IC13
CHARACTER SIGNAL TTL > ECL TRANSLATION IC19
CHARACTER/TEST PATTERN SIGNAL TTL > ECL TRANSLATION IC18
ADDRESS ENCODE/PARALLEL INTERFACE/INTRRUPT CONTROL IC10
WAIT CONTROL IC6
SYNC CONTROL/CLAMP PULSE GENERATE IC11
LED DIVE Q7
D4
SW2
SW1
INVERTER IC31
CLAMP PULSE SELECT IC31
IC30
WINDOW COMPARATOR IC22
DUAL VOLTAGE-CONTROLLED OSCILATOR IC21
VCO SELECT IC23
BUFFER Q6
BUFFER Q9
VOLTAGE COMPARATOR IC25
DIGITAL PHASE COMPARATOR IC20
VD SHIFT FOR CHARACTER GENERATE IC26
VD SHIFT FOR CHARACTER GENERATE IC27
INVERTER IC5
H SYNC PULSE IC6
H SYNC SEL IC34
CHARACTER DISPLAY RAM IC14
CHARACTER FONT ROM No.1 IC15
CHARACTER FONT ROM No.2 IC16
CHARACTER FONT ROM No.3 IC17
X4 14.098MHz
D5 OSC KILL
Y (CPU MEMORY)
SIRCS DECODE IC9
X3 4MHz
SIRCS IS RESET Q5
POWER DOWN DETECT Q4
+5V, SUB
POWER CONTROL DRIVE Q3
D8 SYNC SELECT
BUFFER Q8
SIRCS IC601
D602 STANDBY
LED DRIVE Q601
D601 POWER
SUB +5V
+5.7V
N (RECEIVER)
SIRCS BUFF Q1,2
LED DRIVE Q5
D1
SIRCS ENCODER IC1
Rc (CONTROL PANEL)
V SHIFT LEVEL DET IC9
V-I CONV. Q10
V-I CONV. Q11
V SHIFT GEN. IC8(1/2)
V SHIFT GEN. IC8(2/2)
V SYNC AMP Q9
V SHIFT PROT IC11
RV5 SHIFT
V SHIFT GEN. IC10
V SHIFT LEVEL COMP IC18
V.SYNC SW Q12
V.SYNC SW IC12
PULSE GEN. IC13
V SYNC BUFF Q13
V.HOLD IC15
RV4 V HOLD
S1 V SYNC OFF
V STOP PROT Q16
VD BUFF Q17,203
GATE SW IC14, IC202, D7,8
H SYNC BUFF Q18
AFC IC22
H.SYNC SEP
H.OSC
PRE DRIVE
RV2 F-V
V SHIFT LEVEL CONV. IC20
F-V BUFF IC21
V SYNC SW IC13
CURRENT MIRROW Q19,20
THERM CANCEL Q605
F-V DET IC17
S2 HD OFF
RV1 AFC
RV3 VIDEO AFC
BUFF IC701
H SAW GAIN CONT Q601-603
H SAW BUFF Q604
H.SHIFT IC16
AD.HD GEN IC3
AD.HD LEVEL COMP IC4
H.F HD BUFF Q10
SW IC8
AD.HD BIAS Q2
HD BUFF-1 Q1
AD.HD BUFF Q3,4
H BLK LEVEL COMP. IC6
V-I CONV. Q7
H BLK BIAS-2 Q5
H.BLK GEN IC5
H BLK GEN IC5
HD BUFF Q201,230
HD AMP Q5,6
REGI WAVE GEN IC201
REGI WAVE BUFF IC204
REGI WAVE BUFF IC207
REGI WAVE BUFF IC204
REGI WAVE BUFF IC203
REGI WAVE BUFF IC205
REGI WAVE BUFF IC206
SIZE ABL MULTIPLE Q17-24
FAN PROT Q03
RX
TX
BIN 2
BIN 1
GIN 2
GIN 1
RIN 2
RIN 1
LENS PROT
N.C.
LED WR
HV PROT
EIK PROT
H STOP
H INV
VIDEO/YC
RGB/VIDEO
V.IN SEL
SLOT SET
ON/OFF (B)
ON/OFF (G)
ON/OFF (R)
CLEAR BLUE
TRI/NOT
COLOR/WBB
GBR/YPBPR
SEL 2
SEL 1
SECAM ON
VM/OFF
CODE 2
CODE 1
VID/OTHER
SIRCS
SIRCS(RC)
SIRCS(NA)
SIRCS(NB)
V STOP
FAN PROT
V INV
DATT WR
POWER CONT
DVS/NVS
CP
INT/EXT
VS(Y.DA)
HS(Y.DA)
HF HD
HD
VD
BPCP
BCHA
GCHA
CBRT
RCHA
SG
SONG
H SYNC (2)
V SYNC (2)
NORM/TEST
PL
PH
PLG CONT
CODE3
HD(12V)
FAN
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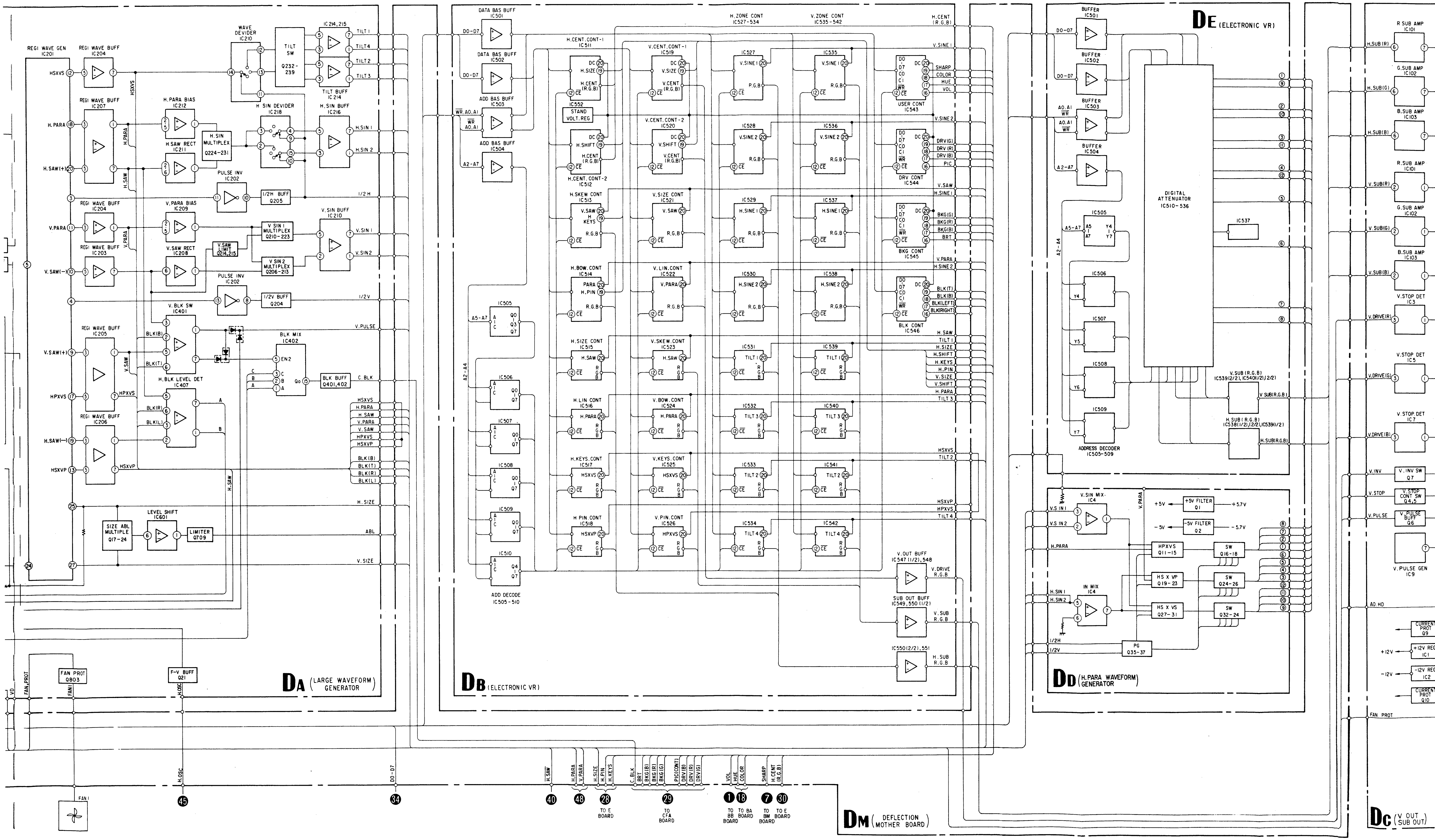
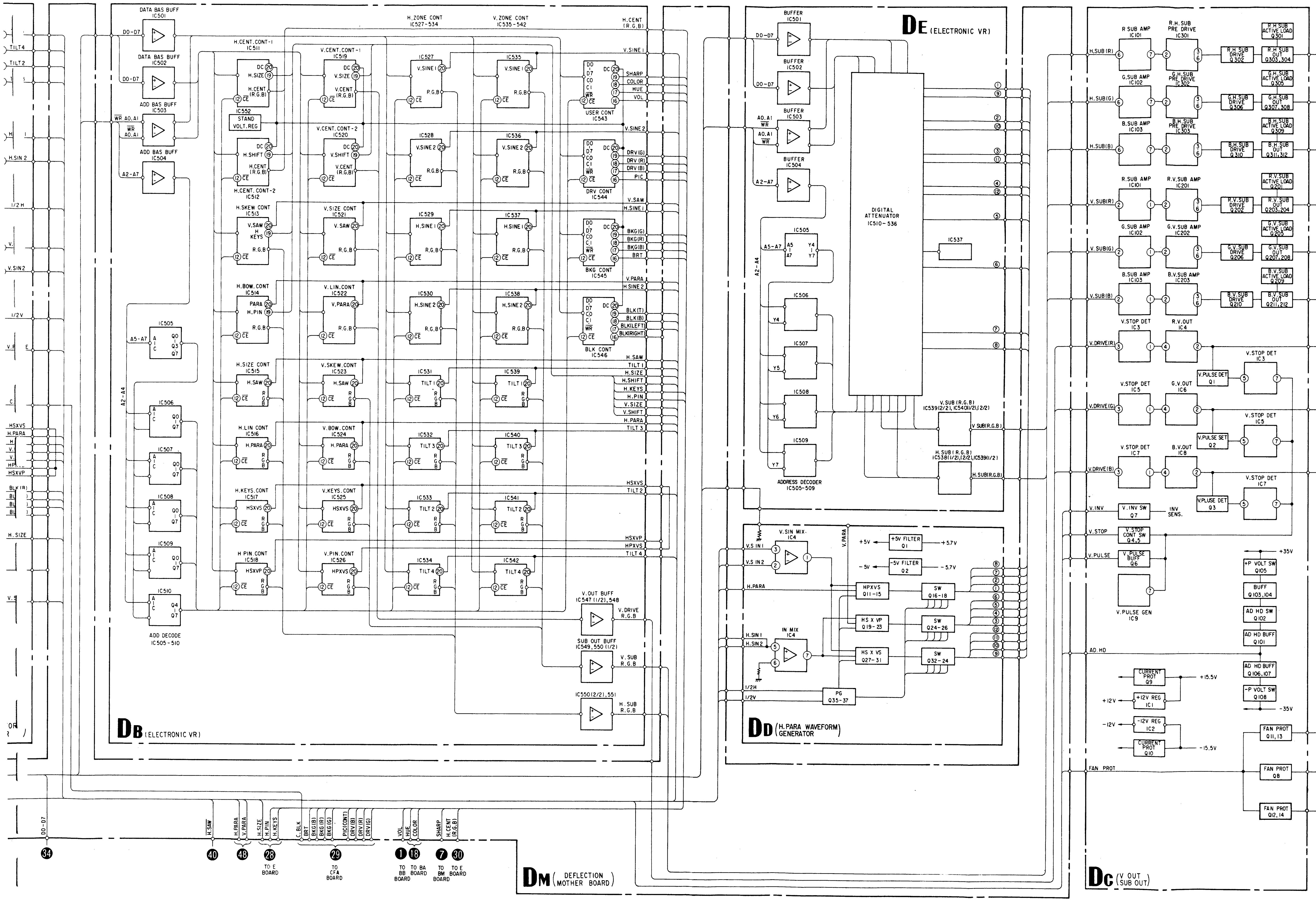
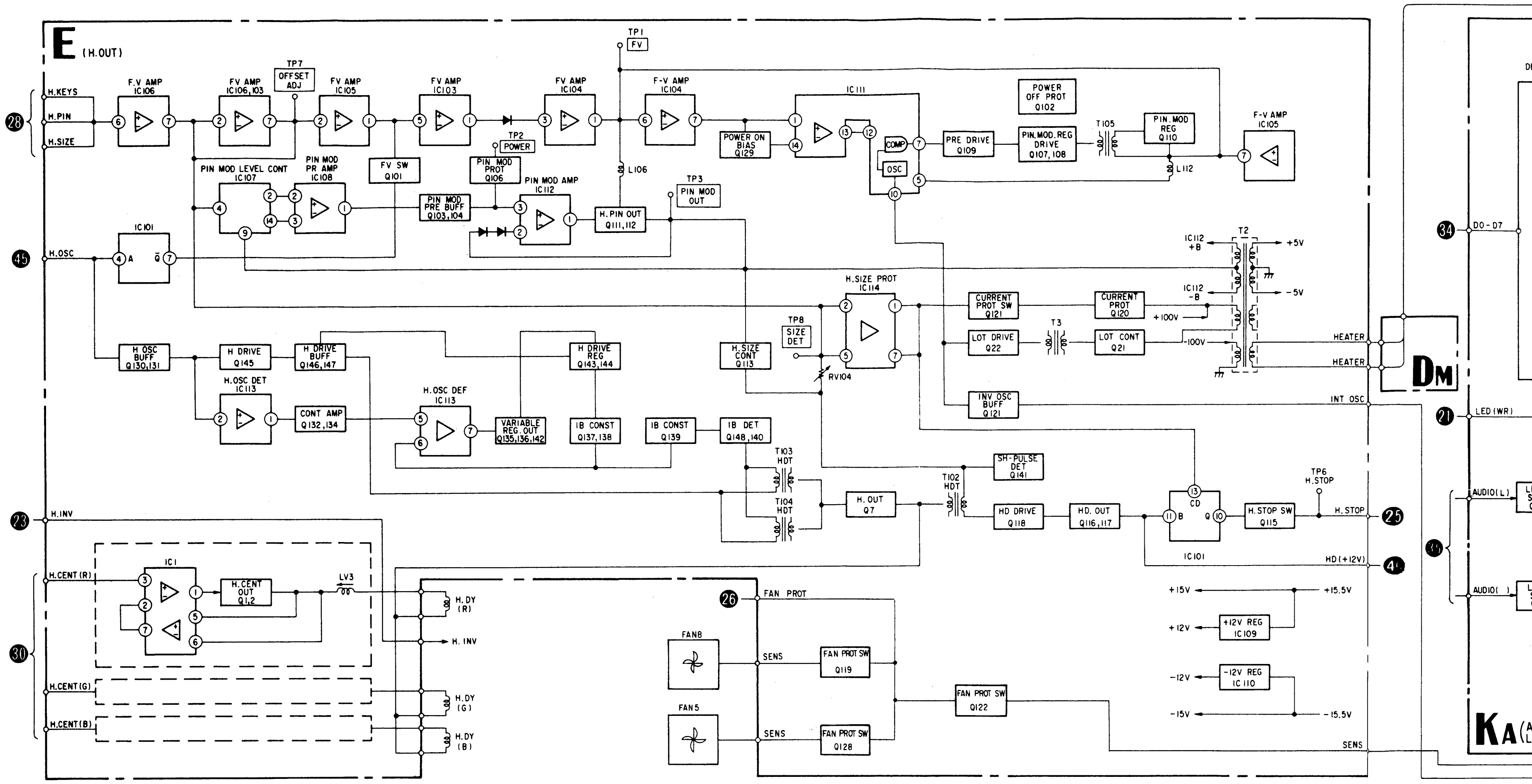
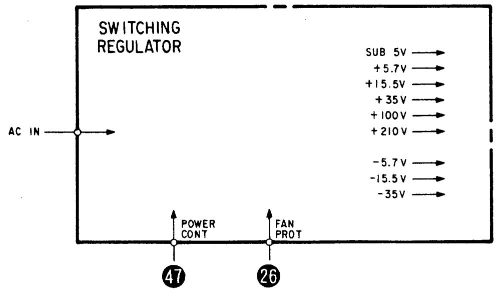
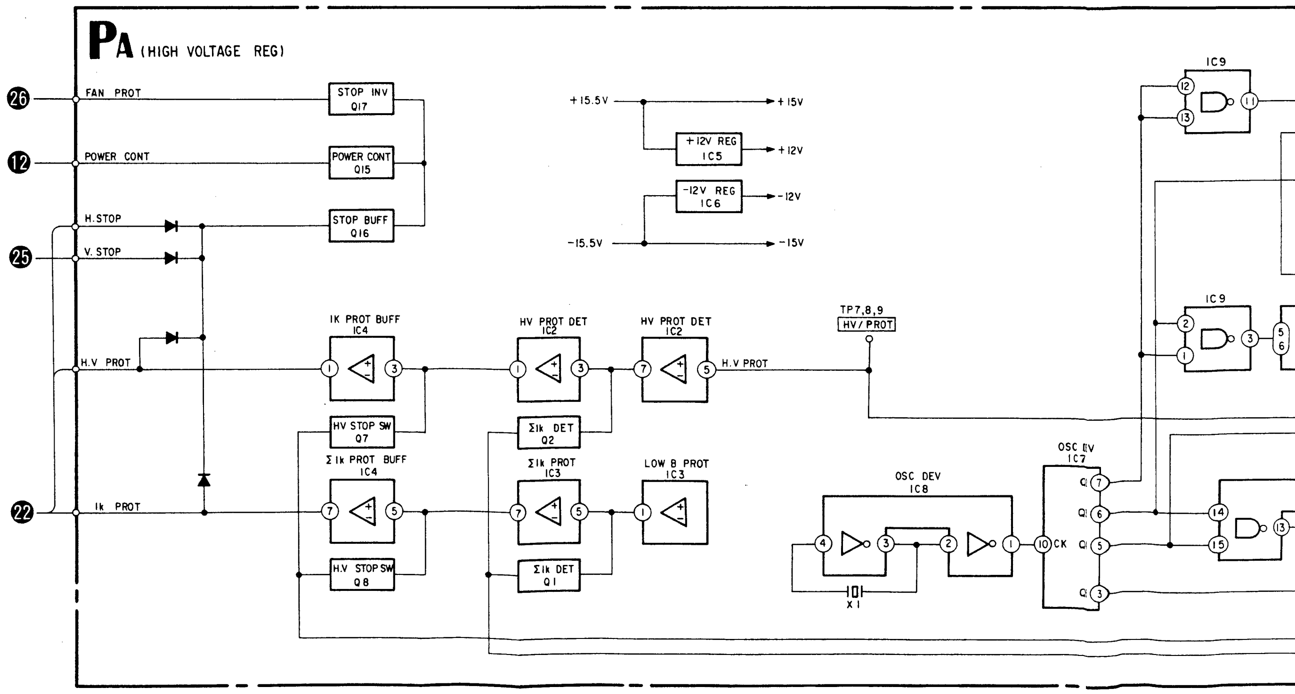

DA (LARGE WAVEFORM GENERATOR)
REGI WAVE GEN IC201
REGI WAVE BUFF IC204
REGI WAVE BUFF IC207
REGI WAVE BUFF IC203
REGI WAVE BUFF IC205
REGI WAVE BUFF IC206
WAVE DEVIDER IC210
TILT SW Q232-239
IC214, 215
TILT BUFF IC214
H.PARA BIAS IC212
H SAW RECT IC211
H.SIN MULTIPLEX Q224-231
H SIN DEVIDER IC218
H.SIN BUFF IC216
PULSE INV IC202
1/2H BUFF Q205
V.PARA BIAS IC209
V.SAW RECT IC208
V SIN 1 MULTIPLEX Q210-223
V.SAW LIMIT Q214,215
V SIN 2 MULTIPLEX Q206-213
V.SIN BUFF IC210
1/2V BUFF Q204
V.BLK SW IC401
BLK MIX IC402
BLK BUFF Q401,402
H.BLK LEVEL DET IC407
LEVEL SHIFT IC601
SIZE ABL MULTIPLE Q17-24
LIMITER Q709
FAN PROT Q803
F-V BUFF Q21
DB (ELECTRONIC VR)
DATA BAS BUFF IC501
DATA BAS BUFF IC502
ADD BAS BUFF IC503
ADD BAS BUFF IC504
IC505
IC506
IC507
IC508
IC509
IC510
ADD DECODE IC505-510
H.CENT.CONT-1 IC511
IC552 STAND VOLT.REG
H.CENT.CONT-2 IC512
H.SKEW CONT IC513
H.BOW.CONT IC514
H.SIZE CONT IC515
H.LIN CONT IC516
H.KEYS.CONT IC517
H PIN CONT IC518
V.CENT.CONT-1 IC519
V.CENT.CONT-2 IC520
V.SIZE CONT IC521
V.LIN.CONT IC522
V.SKEW.CONT IC523
V.BOW.CONT IC524
V.KEYS.CONT IC525
V.PIN.CONT IC526
H.ZONE CONT IC527-534
V.ZONE CONT IC535-542
USER CONT IC543
DRV CONT IC544
BKG CONT IC545
BLK CONT IC546
V.OUT BUFF IC547(1/2),548
SUB OUT BUFF IC549,550(1/2)
IC550(2/2),551
DE (ELECTRONIC VR)
BUFFER IC501
BUFFER IC502
BUFFER IC503
BUFFER IC504
IC505
IC506
IC507
IC508
IC509
ADDRESS DECODER IC505-509
DIGITAL ATTENUATOR IC510-536
IC537
V.SUB(R.G.B) IC539(2/2),IC540(1/2),(2/2)
H.SUB(R.G.B) IC538(1/2),(2/2),IC539(1/2)
DD (H.PARA WAVEFORM GENERATOR)
V.SIN MIX IC4
IN MIX IC4
+5V FILTER Q1
-5V FILTER Q2
HPXVS Q11-15
HS X VP Q19-23
HS X VS Q27-31
SW Q16-18
SW Q24-26
SW Q32-34
PG Q35-37
DM (DEFLECTION MOTHER BOARD)
DC (V OUT SUB OUT)
R.SUB AMP IC101
G.SUB AMP IC102
B.SUB AMP IC103
V.STOP DET IC3
V.STOP DET IC5
V.STOP DET IC7
V.INV SW Q7
V.STOP CONT SW Q4,5
V.PULSE BUFF Q6
V.PULSE GEN IC9
CURRENT PROT Q9
+12V REG IC1
-12V REG IC2
CURRENT PROT Q10
FAN1
TO E BOARD
TO CFA BOARD
TO BB BOARD
TO BA BOARD
TO BM BOARD
TO E BOARD

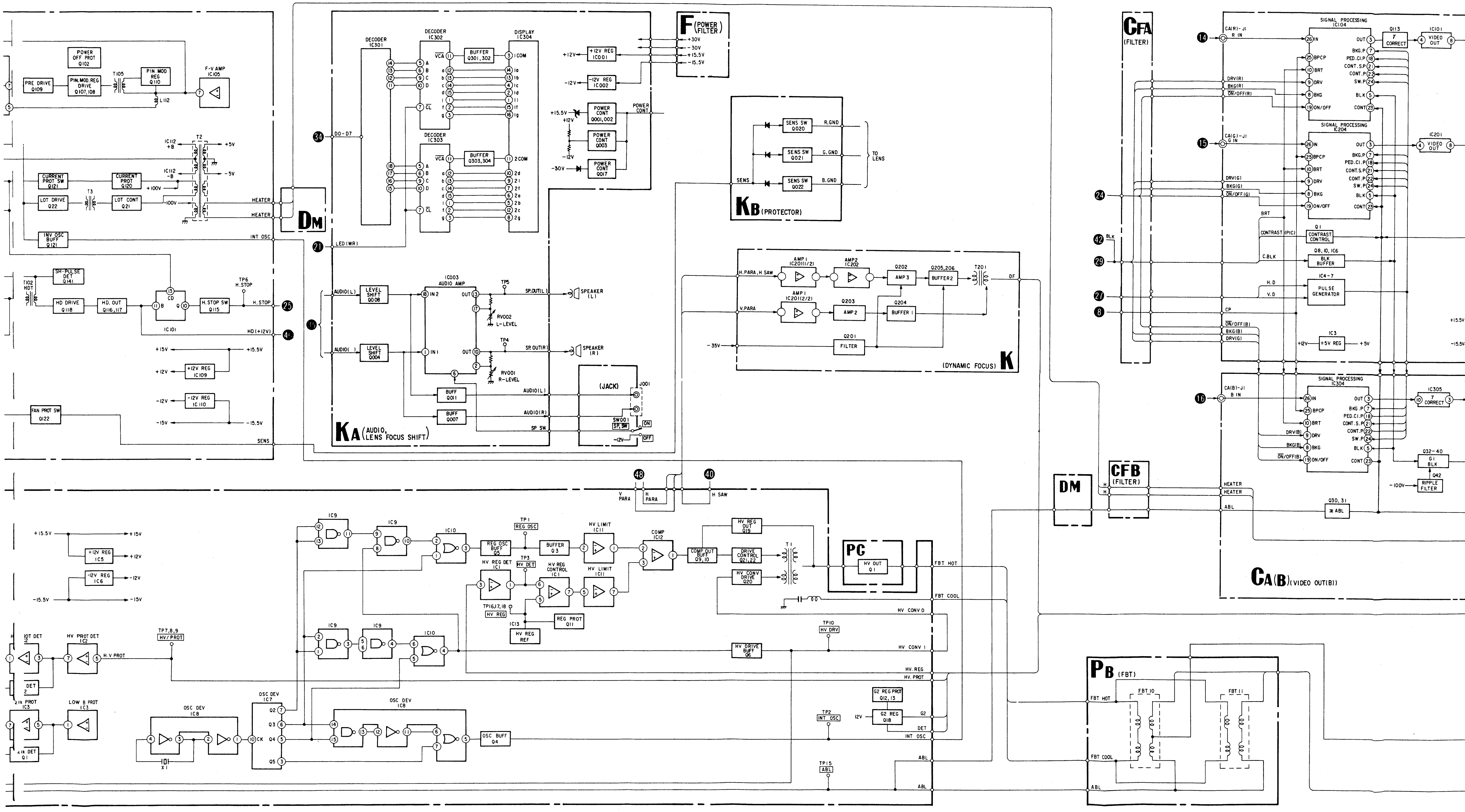

DB (ELECTRONIC VR)
DATA BAS BUFF IC501
DATA BAS BUFF IC502
ADD BAS BUFF IC503
ADD BAS BUFF IC504
ADD DECODE IC505-510
H.ZONE CONT IC527-534
V.ZONE CONT IC535-542
H.CENT.CONT-1 IC511
H.CENT.CONT-2 IC512
STAND VOLT.REG IC552
V.CENT.CONT-1 IC519
V.CENT.CONT-2 IC520
H.SKEW CONT IC513
V.SIZE CONT IC521
H.BOW.CONT IC514
V.LIN.CONT IC522
H.SIZE CONT IC515
V.SKEW.CONT IC523
H.LIN CONT IC516
V.BOW.CONT IC524
H.KEYS.CONT IC517
V.KEYS.CONT IC525
H PIN CONT IC518
V.PIN.CONT IC526
USER CONT IC543
DRV CONT IC544
BKG CONT IC545
BLK CONT IC546
V.OUT BUFF IC547 (1/2), 548
SUB OUT BUFF IC549, 550 (1/2)
IC550 (2/2), 551
V.DRIVE R.G.B
V.SUB R.G.B
H.SUB R.G.B
DE (ELECTRONIC VR)
BUFFER IC501
BUFFER IC502
BUFFER IC503
BUFFER IC504
DIGITAL ATTENUATOR IC510-536
IC537
ADDRESS DECODER IC505-509
V.SUB (R.G.B) IC539(2/2), IC540(1/2), (2/2)
H.SUB1 (R.G.B) IC538(1/2), (2/2), IC539(1/2)
DD (H.PARA WAVEFORM GENERATOR)
V.SIN MIX IC4
IN MIX IC4
+5V FILTER Q1
-5V FILTER Q2
HPXVS Q11-15
HS X VP Q19-23
HS X VS Q27-31
SW Q16-18
SW Q24-26
SW Q32-24
PG Q35-37
DC (V OUT SUB OUT)
R SUB AMP IC101
G.SUB AMP IC102
B.SUB AMP IC103
R.H.SUB PRE DRIVE IC301
G.H.SUB PRE DRIVE IC302
B.H.SUB PRE DRIVE IC303
R.V.SUB AMP IC201
G.V.SUB AMP IC202
B.V.SUB AMP IC203
V.STOP DET IC3
V.STOP DET IC5
V.STOP DET IC7
R.V.OUT IC4
G.V.OUT IC6
B.V.OUT IC8
V.PULSE DET Q1
V.PULSE SET Q2
V.PULSE DET Q3
V.INV SW Q7
INV SENS.
V.STOP CONT SW Q4,5
V.PULSE BUFF Q6
V.PULSE GEN IC9
+P VOLT SW Q105
BUFF Q103,104
AD HD SW Q102
AD HD BUFF Q101
AD HD BUFF Q106,107
-P VOLT SW Q108
CURRENT PROT Q9
+12V REG IC1
-12V REG IC2
CURRENT PROT Q10
FAN PROT Q11,13
FAN PROT Q8
FAN PROT Q12,14
FAN6
FAN3
FAN7
H.SUB (R)
H.SUB (G)
H.SUB (B)
V.SUB (R)
V.SUB (G)
V.SUB (B)
V.DY (R)
V.DY (G)
V.DY (B)
+35V
-35V
+15.5V
-15.5V
+12V
-12V
DM (DEFLECTION MOTHER BOARD)
D0-D7
34
40
48
28
TO E BOARD
29
TO CFA BOARD
1
18
TO BB BOARD
TO BA BOARD
7
TO BM BOARD
30
TO E BOARD

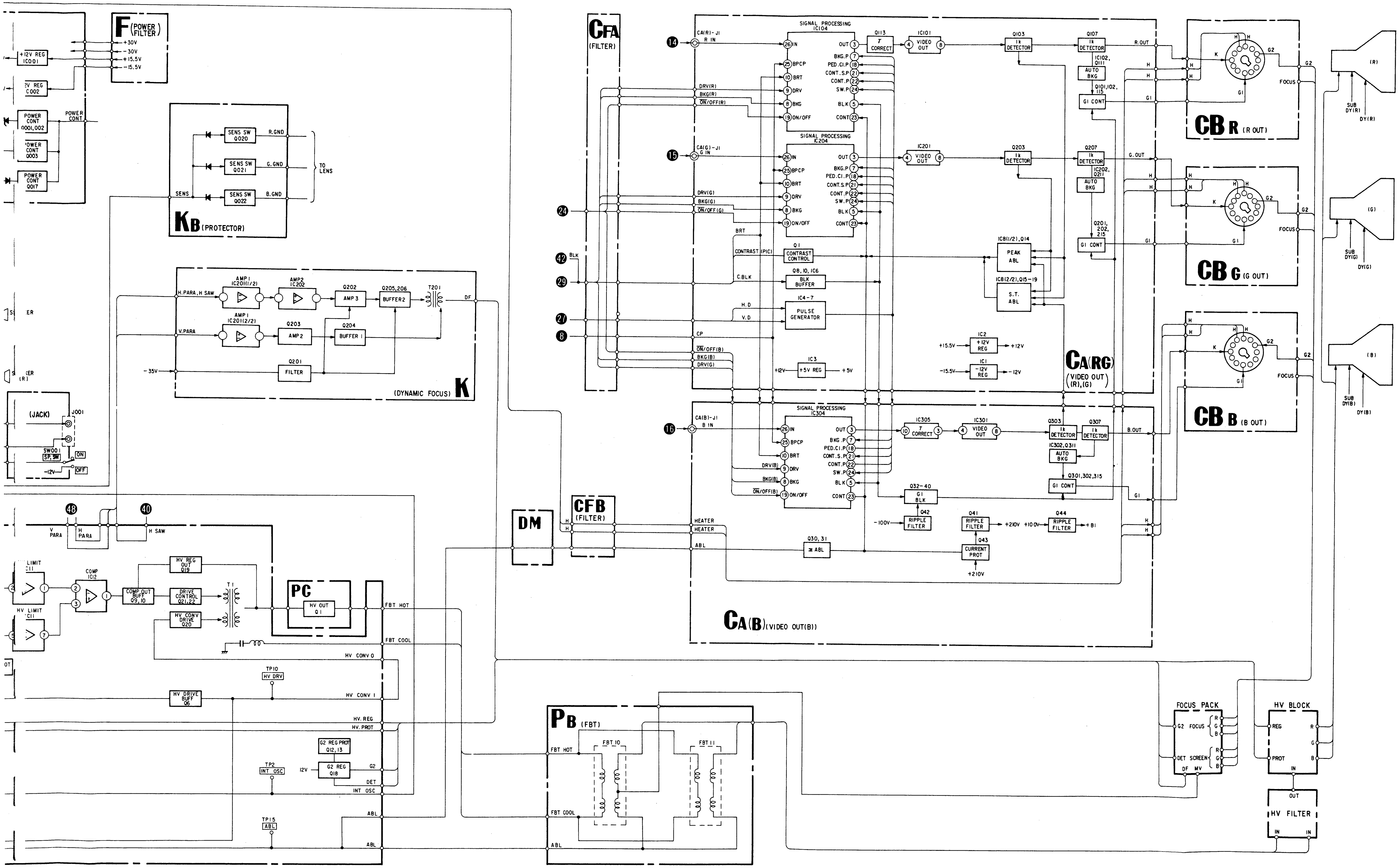
BLOCK DIAGRAMS (3)


E (H.OUT)
H.KEYS
H.PIN
H.SIZE
H.OSC
H.INV
H.CENT(R)
H.CENT(G)
H.CENT(B)
F.V AMP IC106
FV AMP IC106,103
TP7 OFFSET ADJ
FV AMP IC105
FV AMP IC103
FV AMP IC104
F-V AMP IC104
TP1 FV
TP2 POWER
PIN MOD PROT Q106
PIN MOD LEVEL CONT IC107
PIN MOD PR AMP IC108
FV SW Q101
PIN MOD PRE BUFF Q103,104
PIN MOD AMP IC112
H.PIN OUT Q111,112
TP3 PIN MOD OUT
L106
POWER ON BIAS Q129
IC111
COMP
OSC
PRE DRIVE Q109
POWER OFF PROT Q102
PIN.MOD.REG DRIVE Q107,108
T105
PIN MOD REG Q110
L112
F-V AMP IC105
IC101
H OSC BUFF Q130,131
H DRIVE Q145
H DRIVE BUFF Q146,147
H.OSC DET IC113
CONT AMP Q132,134
H.OSC DEF IC113
VARIABLE REG.OUT Q135,136,142
H DRIVE REG Q143,144
IB CONST Q137,138
IB CONST Q139
IB DET Q148,140
H.SIZE CONT Q113
TP8 SIZE DET
RV104
H.SIZE PROT IC114
CURRENT PROT SW Q121
LOT DRIVE Q22
T3
CURRENT PROT Q120
LOT CONT Q21
INV OSC BUFF Q121
IC112 +B
IC112 -B
T2
+5V
-5V
+100V
-100V
HEATER
HEATER
INT OSC
T103 HDT
T104 HDT
H.OUT Q7
T102 HDT
SH-PULSE DET Q141
HD DRIVE Q118
HD. OUT Q116,117
CD
IC101
H.STOP SW Q115
TP6 H.STOP
H.STOP
HD(+12V)
IC1
H.CENT OUT Q1,2
LV3
H.DY (R)
H.INV
H.DY (G)
H.DY (B)
FAN8
FAN5
FAN PROT
SENS
FAN PROT SW Q119
FAN PROT SW Q128
FAN PROT SW Q122
SENS
+15V
+15.5V
+12V
+12V REG IC109
-12V
-12V REG IC110
-15V
-15.5V
SENS
DM
D0-D7
LED(WR)
AUDIO(L)
AUDIO(
KA
28
45
23
30
26
25
40
34
21

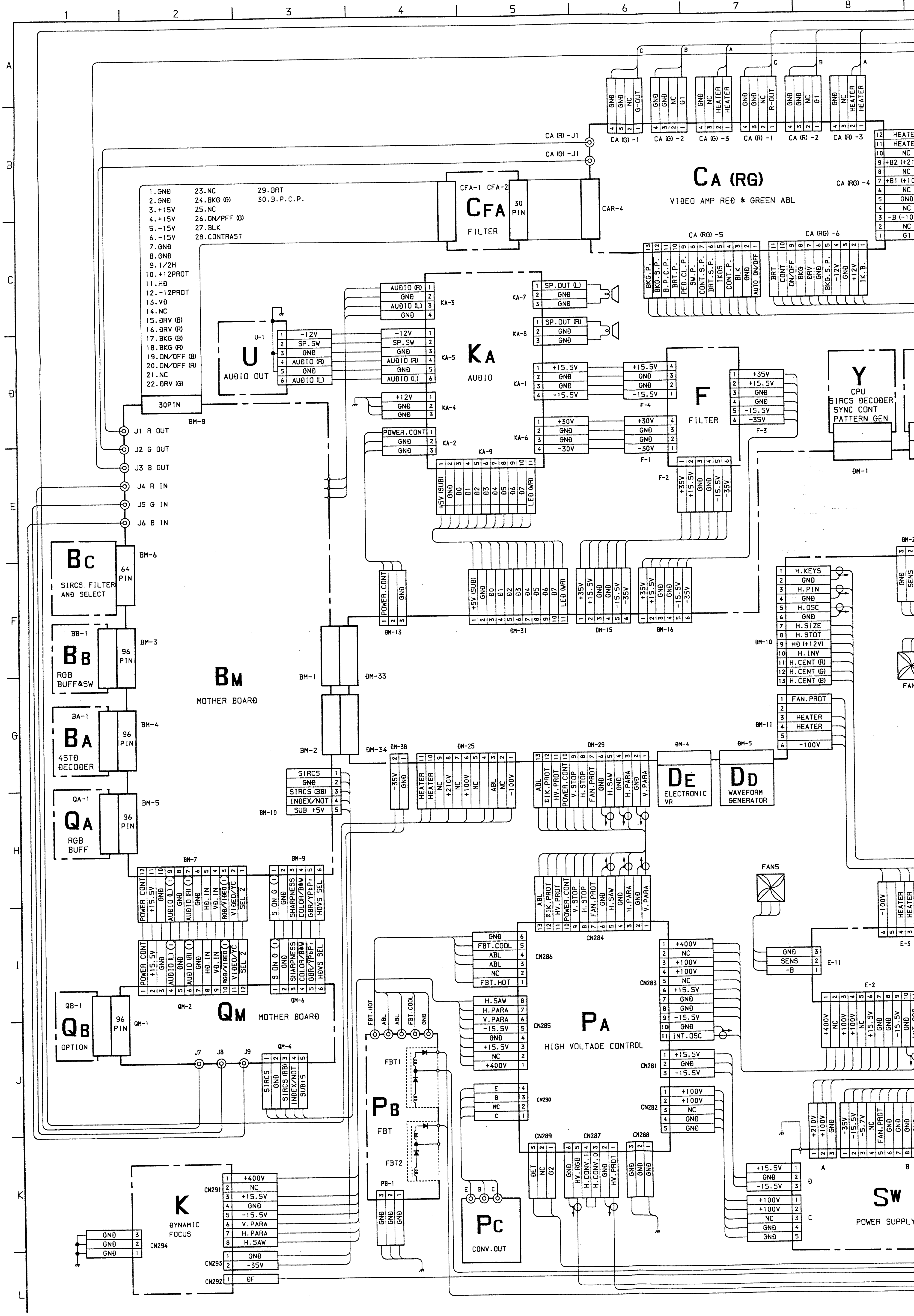

SWITCHING REGULATOR
AC IN
SUB 5V
+5.7V
+15.5V
+35V
+100V
+210V
-5.7V
-15.5V
-35V
POWER CONT
FAN PROT
47
26


PA (HIGH VOLTAGE REG)
FAN PROT
POWER CONT
H.STOP
V.STOP
H.V PROT
Ik PROT
STOP INV Q17
POWER CONT Q15
STOP BUFF Q16
+15.5V
+15V
+12V REG IC5
+12V
-12V REG IC6
-12V
-15.5V
-15V
IK PROT BUFF IC4
HV PROT DET IC2
HV PROT DET IC2
H.V PROT
TP7,8,9 HV/PROT
HV STOP SW Q7
Σ Ik PROT BUFF IC4
Σ Ik DET Q2
Σ Ik PROT IC3
LOW B PROT IC3
H.V STOP SW Q8
Σ Ik DET Q1
OSC DEV IC8
X1
OSC EV IC7
IC9
IC9
26
12
25
22


POWER OFF PROT Q102
PRE DRIVE Q109
PIN. MOD. REG DRIVE Q107,108
T105
PIN MOD REG Q110
L112
F-V AMP IC105
IC112 +B
IC112 -B
T2
+5V
-5V
CURRENT PROT SW Q121
CURRENT PROT Q120
+100V
-100V
T3
LOT DRIVE Q22
LOT CONT Q21
INV OSC BUFF Q121
HEATER
INT OSC
SH-PULSE DET Q141
T102 HDT
HD DRIVE Q118
HD. OUT Q116,117
CD
IC101
TP6 H.STOP
H. STOP SW Q115
H. STOP
HD (+12V)
+15V
+15.5V
+12V REG IC109
+12V
-12V REG IC110
-12V
-15V
-15.5V
FAN PROT SW Q122
SENS
DM
F (POWER FILTER)
+30V
-30V
+15.5V
-15.5V
+12V REG IC001
-12V REG IC002
POWER CONT Q001,002
POWER CONT Q003
POWER CONT Q017
POWER CONT
DECODER IC301
DECODER IC302
DECODER IC303
DISPLAY IC304
BUFFER Q301,302
BUFFER Q303,304
1COM
2COM
D0-D7
LED (WR)
AUDIO (L)
AUDIO (R)
LEVEL SHIFT Q008
LEVEL SHIFT Q004
IC003 AUDIO AMP
TP5
TP4
SP. OUT (L)
SP. OUT (R)
SPEAKER (L)
SPEAKER (R)
RV002 L-LEVEL
RV001 R-LEVEL
BUFF Q011
BUFF Q007
(JACK)
J001
SW001 SP. SW
ON
OFF
SP SW
KA (AUDIO, LENS FOCUS SHIFT)
SENS SW Q020
SENS SW Q021
SENS SW Q022
R. GND
G. GND
B. GND
TO LENS
KB (PROTECTOR)
H. PARA, H SAW
V. PARA
AMP1 IC201(1/2)
AMP2 IC202
AMP1 IC201(2/2)
Q202 AMP3
Q205,206 BUFFER2
T201
DF
Q203 AMP2
Q204 BUFFER1
Q201 FILTER
-35V
K (DYNAMIC FOCUS)
34
21
25
48
40
V PARA
H PARA
H SAW
IC9
IC10
TP1 REG OSC
REG OSC BUFF Q5
BUFFER Q3
HV LIMIT IC11
COMP IC12
TP3 HV DET
HV REG DET IC1
HV REG CONTROL IC1
HV REG OUT Q19
COMP OUT BUFF Q9,10
DRIVE CONTROL Q21,22
HV CONV DRIVE Q20
T1
PC
HV OUT Q1
FBT HOT
FBT COOL
HV CONV 0
HV CONV 1
TP16,17,18 HV REG
IC13 HV REG REF
REG PROT Q11
TP10 HV DRV
HV DRIVE BUFF Q6
HV. REG
HV. PROT
HV PROT DET IC2
H.V PROT
TP7,8,9 HV/PROT
LOW B PROT IC3
+15.5V
+12V REG IC5
-12V REG IC6
OSC DEV IC7
OSC DEV IC8
X1
OSC BUFF Q4
G2 REG PROT Q12,13
G2 REG Q18
TP2 INT OSC
TP15 ABL
G2
DET
INT OSC
ABL
CFA (FILTER)
CA(R)-J1 R IN
CA(G)-J1 G IN
CA(B)-J1 B IN
SIGNAL PROCESSING IC104
SIGNAL PROCESSING IC204
SIGNAL PROCESSING IC304
Q113 γ CORRECT
IC101 VIDEO OUT
IC201 VIDEO OUT
IC305 γ CORRECT
DRV(R)
BKG(R)
ON/OFF(R)
DRV(G)
BKG(G)
ON/OFF(G)
DRV(B)
BKG(B)
ON/OFF(B)
BPCP
BRT
DRV
BKG
ON/OFF
BKG.P
PED.CI.P
CONT.S.P
CONT.P
SW.P
BLK
CONT
14
15
16
24
42
29
27
8
CONTRAST (PIC)
Q1 CONTRAST CONTROL
C.BLK
Q8,10,IC6 BLK BUFFER
H.D
V.D
IC4-7 PULSE GENERATOR
CP
IC3 +5V REG
+15.5V
-15.5V
Q32-40 G1 BLK
Q42 RIPPLE FILTER
-100V
CFB (FILTER)
HEATER
ABL
Q30,31 ABL
CA(B) (VIDEO OUT(B))
PB (FBT)
FBT HOT
FBT COOL
FBT10
FBT11


F (POWER FILTER)
+12V REG IC001
+30V
-30V
+15.5V
-15.5V
POWER CONT Q001,002
POWER CONT Q003
POWER CONT Q017
KB (PROTECTOR)
SENS SW Q020
SENS SW Q021
SENS SW Q022
R.GND
G.GND
B.GND
TO LENS
SENS
K (DYNAMIC FOCUS)
H.PARA, H SAW
V.PARA
AMP1 IC201(1/2)
AMP2 IC202
Q202 AMP3
Q205,206 BUFFER2
T201
DF
AMP1 IC201(2/2)
Q203 AMP2
Q204 BUFFER 1
Q201 FILTER
-35V
(JACK)
J001
SW001 SP. SW
ON
OFF
-12V
V PARA
H PARA
H SAW
HV LIMIT IC11
COMP IC12
COMP OUT BUFF Q9,10
HV REG OUT Q19
DRIVE CONTROL Q21,22
HV CONV DRIVE Q20
T1
PC
HV OUT Q1
FBT HOT
FBT COOL
HV CONV 0
HV CONV 1
TP10 HV DRV
HV DRIVE BUFF Q6
HV. REG
HV. PROT
G2 REG PROT Q12,13
G2 REG Q18
12V
G2
DET
INT OSC
TP2 INT OSC
TP15 ABL
ABL
DM
CFA (FILTER)
CFB (FILTER)
PB (FBT)
FBT 10
FBT 11
CA(R)-J1 R IN
CA(G)-J1 G IN
CA(B)-J1 B IN
SIGNAL PROCESSING IC104
SIGNAL PROCESSING IC204
SIGNAL PROCESSING IC304
IN
OUT
BKG.P
BPCP
PED.Cl.P
BRT
CONT.S.P
CONT.P
DRV
SW.P
BKG
BLK
ON/OFF
CONT
DRV(R)
BKG(R)
ON/OFF(R)
DRV(G)
BKG(G)
ON/OFF(G)
DRV(B)
BKG(B)
ON/OFF(B)
Q113 γ CORRECT
IC101 VIDEO OUT
Q103 Ik DETECTOR
Q107 Ik DETECTOR
IC102, Q111 AUTO BKG
Q101,102,115 G1 CONT
R.OUT
IC201 VIDEO OUT
Q203 Ik DETECTOR
Q207 Ik DETECTOR
IC202, Q211 AUTO BKG
Q201,202,215 G1 CONT
G.OUT
BRT
CONTRAST (PIC)
Q1 CONTRAST CONTROL
C.BLK
Q8,10, IC6 BLK BUFFER
H.D
V.D
IC4-7 PULSE GENERATOR
CP
IC8(1/2),Q14 PEAK ABL
IC8(2/2),Q15-19 S.T. ABL
IC2 +12V REG
+15.5V
+12V
IC1 -12V REG
-15.5V
-12V
IC3 +5V REG
+5V
CA(RG) (VIDEO OUT (R),(G))
IC305 γ CORRECT
IC301 VIDEO OUT
Q303 Ik DETECTOR
Q307 Ik DETECTOR
IC302,Q311 AUTO BKG
Q301,302,315 G1 CONT
B.OUT
Q32-40 G1 BLK
Q42 RIPPLE FILTER
-100V
Q41 RIPPLE FILTER
+210V
+100V
Q44 RIPPLE FILTER
+B1
Q43 CURRENT PROT
Q30,31 ≅ ABL
HEATER
CA(B) (VIDEO OUT(B))
CB R (R OUT)
CB G (G OUT)
CB B (B OUT)
H
K
G1
G2
FOCUS
(R)
(G)
(B)
SUB DY(R)
DY(R)
SUB DY(G)
DY(G)
SUB DY(B)
DY(B)
FOCUS PACK
G2 FOCUS
DET SCREEN
DF MV
HV BLOCK
REG
PROT
IN
OUT
HV FILTER
14
15
16
24
42
29
27
8
48
40

7-3. FRAME SCHEMATIC DIAGRAM



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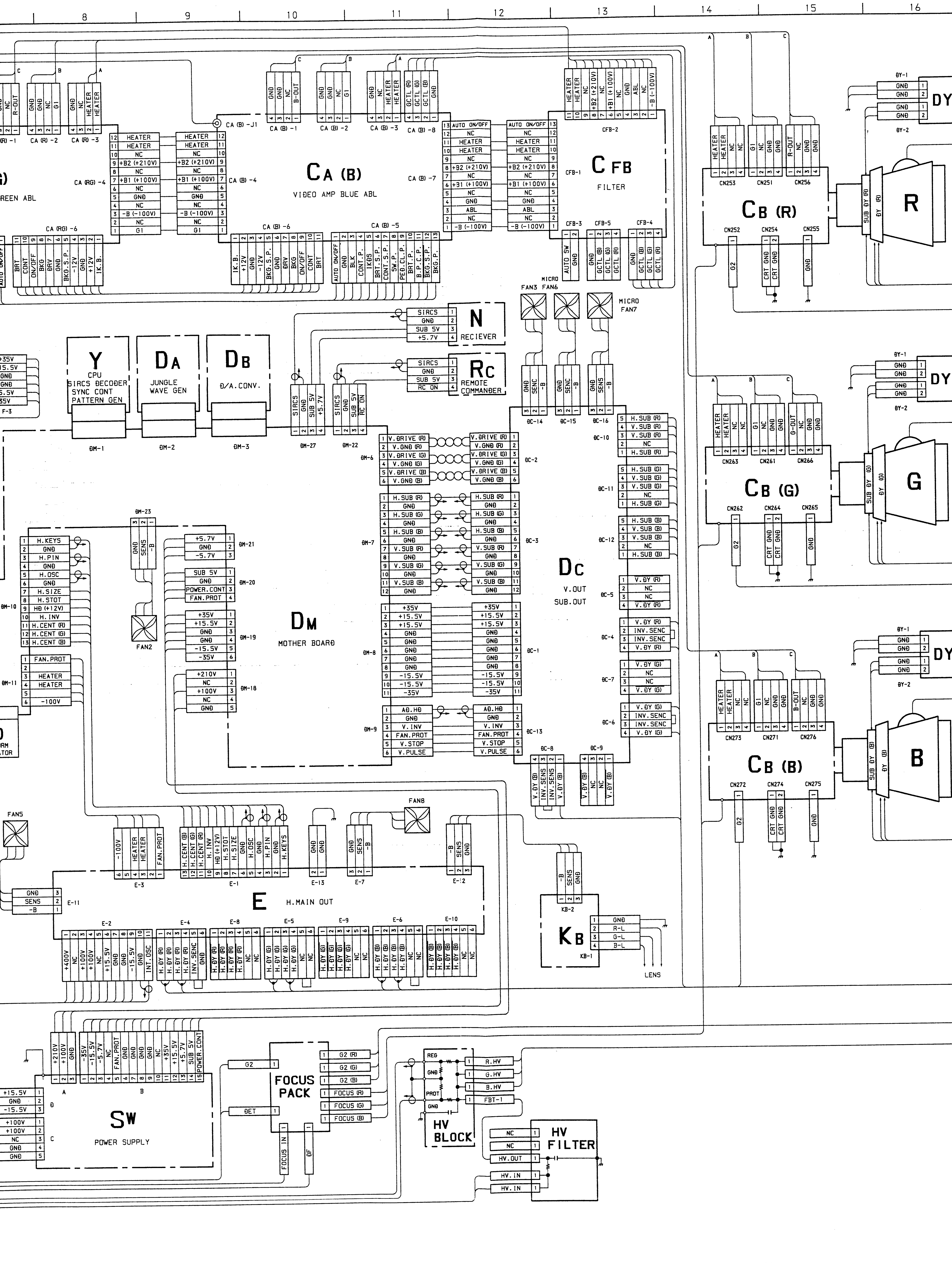
A
B
C
D
E
F
G
H
I
J
K
L
CA (RG)
VIDEO AMP RED & GREEN ABL
CA (G) -1
CA (G) -2
CA (G) -3
CA (R) -1
CA (R) -2
CA (R) -3
CA (RG) -4
CA (RG) -5
CA (RG) -6
CA (R) -J1
CA (G) -J1
CAR-4
CFA
FILTER
CFA-1
CFA-2
30 PIN
1. GND
2. GND
3. +15V
4. +15V
5. -15V
6. -15V
7. GND
8. GND
9. 1/2H
10. +12PROT
11. HD
12. -12PROT
13. VD
14. NC
15. DRV (B)
16. DRV (R)
17. BKG (B)
18. BKG (R)
19. ON/OFF (B)
20. ON/OFF (R)
21. NC
22. DRV (G)
23. NC
24. BKG (G)
25. NC
26. ON/PFF (G)
27. BLK
28. CONTRAST
29. BRT
30. B.P.C.P.
30PIN
U
AUDIO OUT
U-1
KA
AUDIO
KA-1
KA-2
KA-3
KA-4
KA-5
KA-6
KA-7
KA-8
KA-9
F
FILTER
F-1
F-2
F-3
F-4
Y
CPU
SIRCS DECODER
SYNC CONT
PATTERN GEN
J1 R OUT
J2 G OUT
J3 B OUT
J4 R IN
J5 G IN
J6 B IN
BC
SIRCS FILTER AND SELECT
64 PIN
BB
BB-1
RGB BUFF&SW
96 PIN
BA
BA-1
4STD DECODER
QA
QA-1
RGB BUFF
BM
MOTHER BOARD
BM-1
BM-2
BM-3
BM-4
BM-5
BM-6
BM-7
BM-8
BM-9
BM-10
BM-11
BM-13
BM-15
BM-16
BM-25
BM-29
BM-31
BM-33
BM-34
BM-38
DE
ELECTRONIC VR
DD
WAVEFORM GENERATOR
QB
QB-1
OPTION
QM
MOTHER BOARD
QM-1
QM-2
QM-4
QM-6
J7
J8
J9
FANS
PA
HIGH VOLTAGE CONTROL
CN281
CN282
CN283
CN284
CN285
CN286
CN287
CN288
CN289
CN290
PB
FBT
FBT1
FBT2
PB-1
PC
CONV. OUT
K
DYNAMIC FOCUS
CN291
CN292
CN293
CN294
E-2
E-3
E-11
SW
POWER SUPPLY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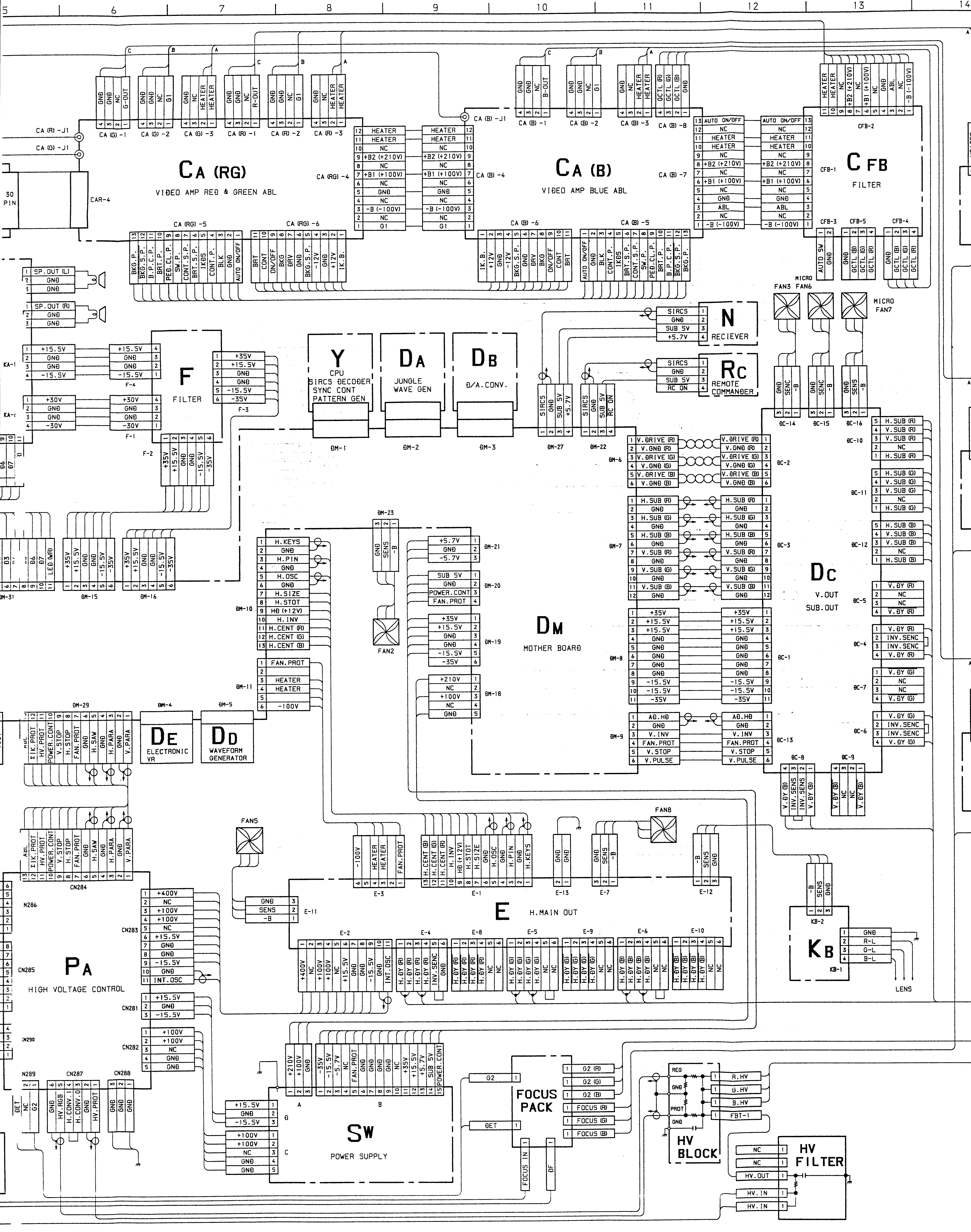
16
CA (B)
VIDEO AMP BLUE ABL
EEN ABL
C FB
FILTER
CB (R)
CB (G)
CB (B)
R
G
B
DY
Y
CPU
SIRCS DECODER
SYNC CONT
PATTERN GEN
DA
JUNGLE
WAVE GEN
DB
D/A.CONV.
N
RECIEVER
RC
REMOTE
COMMANDER
DM
MOTHER BOARD
DC
V.OUT
SUB.OUT
E
H.MAIN OUT
KB
LENS
SW
POWER SUPPLY
FOCUS
PACK
HV
BLOCK
HV
FILTER
FAN2
FAN3
FAN5
FAN6
FAN7
FAN8
MICRO
CA (B) -J1
CA (B) -1
CA (B) -2
CA (B) -3
CA (B) -4
CA (B) -5
CA (B) -6
CA (B) -7
CA (B) -8
CFB-1
CFB-2
CFB-3
CFB-4
CFB-5
DM-1
DM-2
DM-3
DM-27
DM-22
DC-2
DC-3
DC-1
DC-13
E-1
E-2
E-3
E-11
E-13
G2
FOCUS (R)
FOCUS (G)
FOCUS (B)
R.HV
G.HV
B.HV
FBT-1
HV.OUT
HV.IN



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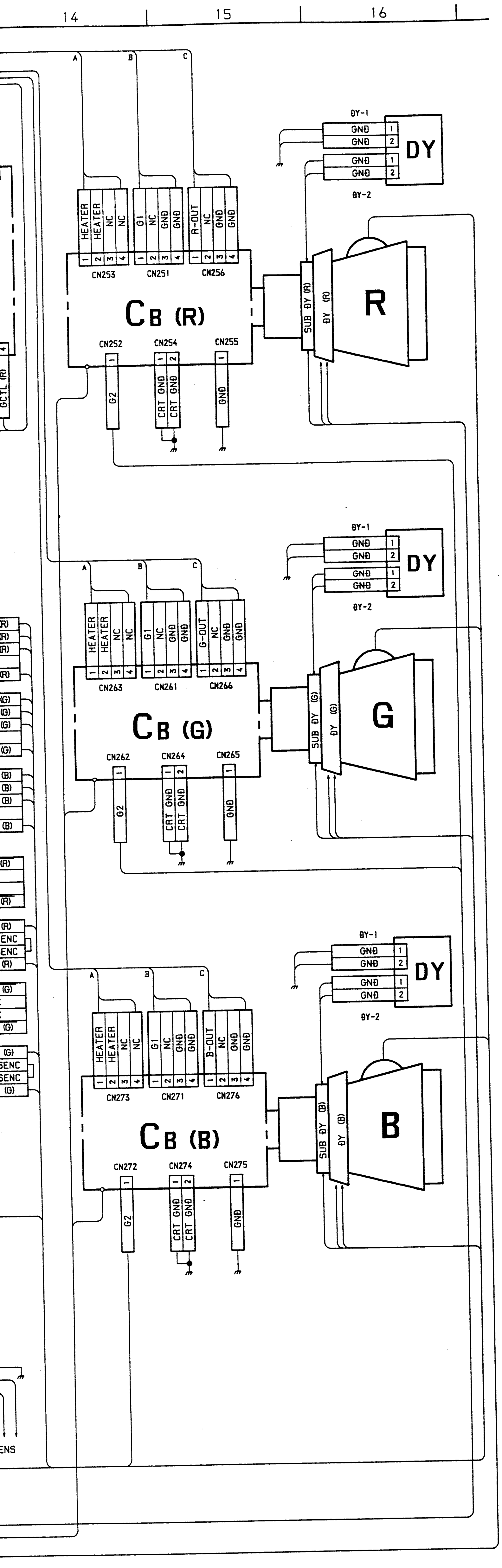
12
13
14
CA (RG)
VIDEO AMP RED & GREEN ABL
CA (R) -J1
CA (G) -J1
CAR-4
30 PIN
CA (G) -1
CA (G) -2
CA (G) -3
CA (R) -1
CA (R) -2
CA (R) -3
CA (RG) -4
CA (RG) -5
CA (RG) -6
G-OUT
R-OUT
B-OUT
HEATER
NC
GND
G1
+B2 (+210V)
+B1 (+100V)
-B (-100V)
CA (B)
VIDEO AMP BLUE ABL
CA (B) -J1
CA (B) -1
CA (B) -2
CA (B) -3
CA (B) -4
CA (B) -5
CA (B) -6
CA (B) -7
CA (B) -8
GCTL (R)
GCTL (G)
GCTL (B)
AUTO ON/OFF
ABL
CFB
FILTER
CFB-1
CFB-2
CFB-3
CFB-4
CFB-5
AUTO SW
BKG.P.
BKG.S.P.
B.P.CL.P.
BRT.P.
PED.CL.P.
SW.P.
CONT.S.P.
BRT.S.P.
IKDS
CONT.P.
BLK
BRT
CONT
ON/OFF
BKG
DRV
-12V
+12V
IK.B.
MICRO FAN3
FAN6
MICRO FAN7
SP.OUT (L)
SP.OUT (R)
N
RECIEVER
SIRCS
SUB 5V
+5.7V
RC
REMOTE COMMANDER
RC ON
Y
CPU
SIRCS DECODER
SYNC CONT
PATTERN GEN
DA
JUNGLE
WAVE GEN
DB
D/A.CONV.
F
FILTER
KA-1
F-1
F-2
F-3
F-4
+15.5V
-15.5V
+30V
-30V
+35V
-35V
DM-1
DM-2
DM-3
DM-27
DM-22
DM-6
DM-7
DM-8
DM-9
DM-10
DM-11
DM-15
DM-16
DM-18
DM-19
DM-20
DM-21
DM-23
DM-29
DM-31
DM-4
DM-5
LED (W/R)
DM
MOTHER BOARD
V.DRIVE (R)
V.GND (R)
V.DRIVE (G)
V.GND (G)
V.DRIVE (B)
V.GND (B)
H.SUB (R)
H.SUB (G)
H.SUB (B)
V.SUB (R)
V.SUB (G)
V.SUB (B)
AD.HD
V.INV
FAN.PROT
V.STOP
V.PULSE
H.KEYS
H.PIN
H.OSC
H.SIZE
H.STOT
HD (+12V)
H.INV
H.CENT (R)
H.CENT (G)
H.CENT (B)
+5.7V
-5.7V
POWER.CONT
FAN.PROT
+210V
+100V
SENS
-B
FAN2
DC
V.OUT
SUB.OUT
DC-1
DC-2
DC-3
DC-4
DC-5
DC-6
DC-7
DC-8
DC-9
DC-10
DC-11
DC-12
DC-13
DC-14
DC-15
DC-16
V.DY (R)
V.DY (G)
V.DY (B)
INV.SENC
INV.SENS
SENC
DE
ELECTRONIC VR
DD
WAVEFORM GENERATOR
ΣIK.PROT
HV.PROT
POWER.CONT
H.STOP
H.SAW
H.PARA
V.PARA
CN284
CN283
CN285
CN281
CN282
CN290
CN287
CN288
N286
N289
PA
HIGH VOLTAGE CONTROL
+400V
INT.OSC
DET
G2
HV.RGB
H.CONV.1
H.CONV.0
HV.PROT
FAN5
FAN8
E
H.MAIN OUT
E-1
E-2
E-3
E-4
E-5
E-6
E-7
E-8
E-9
E-10
E-11
E-12
E-13
H.DY (R)
H.DY (G)
H.DY (B)
KB
KB-1
KB-2
R-L
G-L
B-L
LENS
SW
POWER SUPPLY
A
B
C
D
SUB 5V
FOCUS PACK
G2 (R)
G2 (G)
G2 (B)
FOCUS (R)
FOCUS (G)
FOCUS (B)
FOCUS IN
DF
HV BLOCK
REG
PROT
R.HV
G.HV
B.HV
FBT-1
HV FILTER
HV.OUT
HV.IN


14
15
16
A
B
C
BY-1
GND
GND
GND
GND
BY-2
DY
HEATER
HEATER
NC
NC
G1
NC
GND
GND
R-OUT
NC
GND
GND
CN253
CN251
CN256
CB (R)
CN252
CN254
CN255
G2
CRT GND
CRT GND
GND
SUB DY (R)
DY (R)
R
GCTL (R)
G-OUT
CN263
CN261
CN266
CB (G)
CN262
CN264
CN265
SUB DY (G)
DY (G)
G
B-OUT
CN273
CN271
CN276
CB (B)
CN272
CN274
CN275
SUB DY (B)
DY (B)
B
ENC
ENS

7-4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note :

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms, 1/4W in resistance, 1/10W in chip resistance.
  kΩ=1000Ω, MΩ=1000kΩ
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- △ : internal component.
- ▭ : panel designation and adjustment for repair.
- All variable and adjustable resistors have charactristic curve B, unless otherwise noted.

- The components identified by ⧓ in this basic schematic diagrams have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required replace only with the value originally used.
- When replacing components identified by ◪, make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⧓ and repeat the adjustment untill the specified value is achieved. (Refer to R1, R4, R59, R30, R33, R34, R131, R132, adjust on Page 46, 47.)

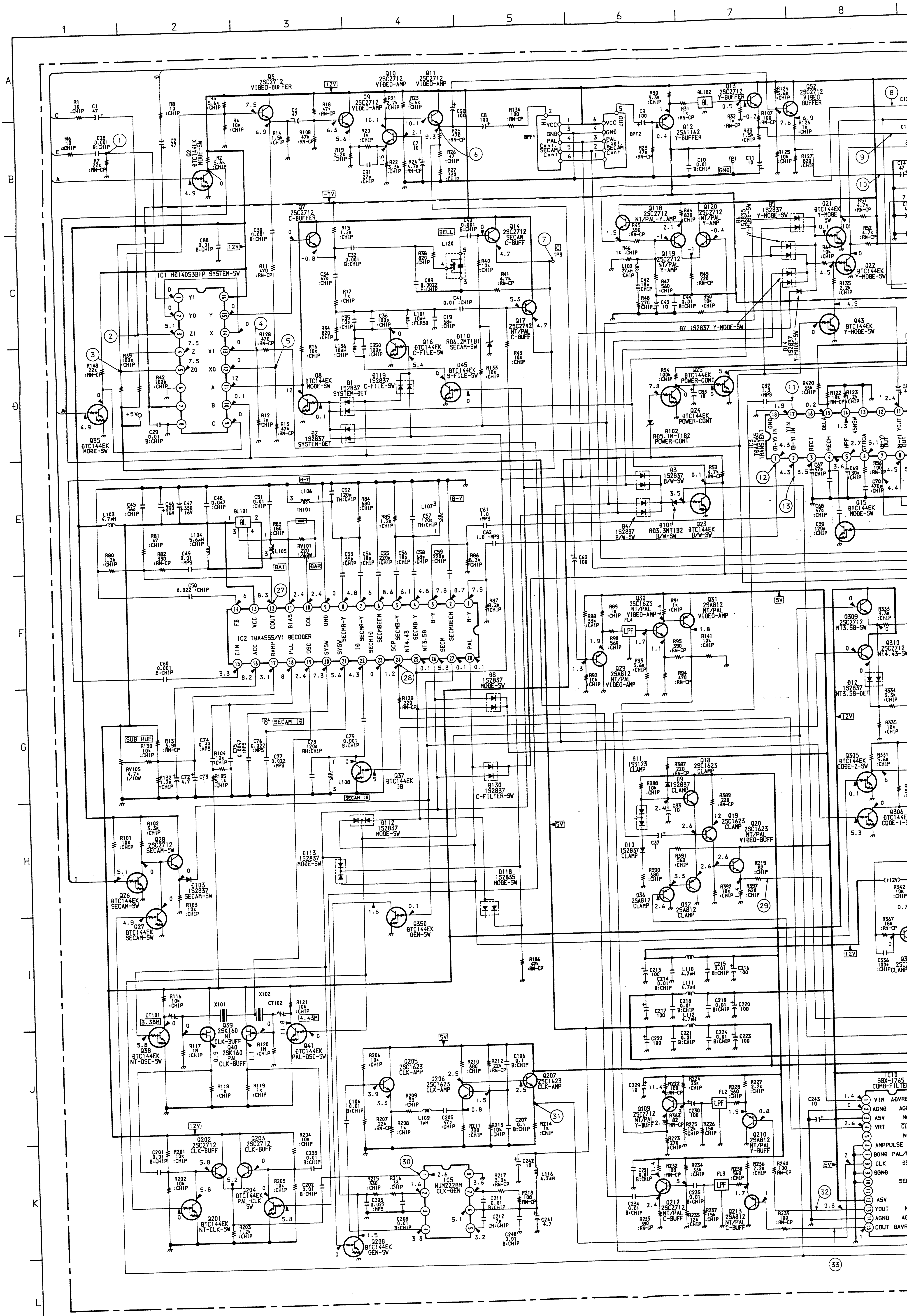
Part replaced(◪)	Adjustment(⧓)
IC2, Q7, D9, D12, C13, R20, R21, R22. R23, R24, R33, R34, R35, R36, R82, (PA BOARD) PA MOUNT HV BLOCK	HV HOLD DOWN (R33,R34)
IC1, IC7, IC8, IC9, IC10, IC11, IC12, IC13,R38, R39, R63, R64, R65, R66, R69, R72, R78, R80, R131, R132, X1,(PA BOARD) PA MOUNT, PB MOUNT HV BLOCK	HV REGULATION (R131,R132)
IC2, IC3, IC5, Q1, Q2, Q7, Q8, D4. D5, D9, R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R20, R21, R22, R23, R24, R43, R44, R45, R46, R47, R82, R88, R121. R122, (PA BOARD), R143, R144 R733, (DA BOARD) PA MOUNT, PB MOUNT	BEAM CURRENT PROTECTOR (R1,R4)
IC1, IC3, IC5, Q8, D4, D5, D10, D11, R9, R10, R26, R28, R29, R30, R31, R88, R95, (PA BOARD) PA MOUNT	LOW B PROTECTOR (R29,R30)

Voltage value is the reference value between it and th
when NTSC 3.58 color bar signal is received from co
generator (digital multi-meter used : 10M ohms/V DC

- Displays a list of BB, BA board modes.
  (PAL, SECAM, NTSC 3.58, NTSC 4.43)
  Display a list of existing voltages, when board E
  a white pattern of internal signals.
- Unit of voltage values is V (volt)
- ⁎ : Measurement disabled.
- ▬▬ : B+ line
- ■ ■ ■ : B− line
  (Actual measured value may be different).
- Circled numbers are waveform references.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CA
	: FUSE	NONFLAMMABLE FU
	: RS	NONFLAMMABLE ME
	: RB	NONFLAMMABLE CE
	: RW	NONFLAMMABLE WI
	: ※	ADJUSTMENT RESIS
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYES
	: MPP	METALIZED POLYPF
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATUF
	: ALR	HIGH RIPPLE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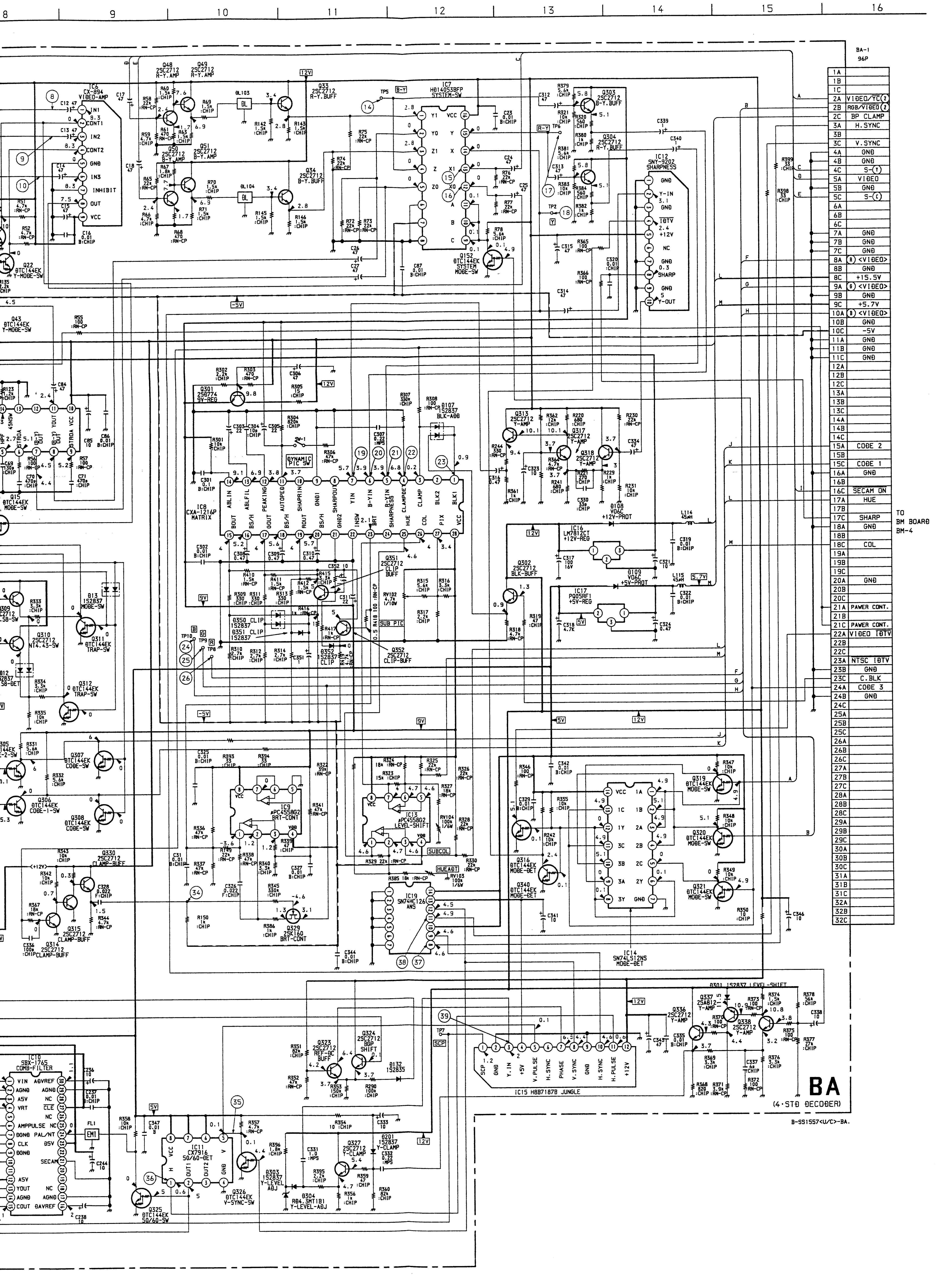
A
B
C
D
E
F
G
H
I
J
K
L
IC1 HD14053BFP SYSTEM-SW
IC2 TDA4555/V1 DECODER
IC5 NJM2228M CLK-GEN
IC10 SBX-1765 COMB-FILTER
Q3 2SC2712 VIDEO-BUFFER
Q9 2SC2712 VIDEO-AMP
Q10 2SC2712 VIDEO-AMP
Q11 2SC2712 VIDEO-AMP
Q12 2SA1162 Y-BUFFER
Q13 2SC2712 Y-BUFFER
Q52 2SC2712 VIDEO BUFFER
Q2 DTC144EK MODE-SW
Q7 2SC2712 C-BUFFER
Q14 2SC2712 SECAM C-BUFF
Q16 DTC144EK C-FILE-SW
Q17 2SC2712 NT/PAL C-BUFF
Q45 DTC144EK S-FILE-SW
Q8 DTC144EK MODE-SW
Q35 DTC144EK MODE-SW
Q118 2SC2712 NT/PAL-Y.AMP
Q119 2SC2712 NT/PAL Y-AMP
Q120 2SC2712 NT/PAL Y-AMP
Q21 DTC144EK Y-MODE SW
Q22 DTC144EK Y-MODE-SW
Q43 DTC144EK Y-MODE-SW
Q24 DTC144EK POWER-CONT
Q25 DTC144EK POWER-CONT
Q23 DTC144EK B/W-SW
Q15 DTC144EK MODE-SW
Q30 2SC1623 NT/PAL VIDEO-AMP
Q31 2SA812 NT/PAL VIDEO-AMP
Q29 2SA812 NT/PAL VIDEO-AMP
Q37 DTC144EK ID
Q28 2SC2712 SECAM-SW
Q26 DTC144EK SECAM-SW
Q27 DTC144EK SECAM-SW
Q350 DTC144EK GEN-SW
Q18 2SC1623 CLAMP
Q19 2SC1623 CLAMP
Q20 2SC1623 NT/PAL VIDEO-BUFF
Q36 2SA812 CLAMP
Q32 2SA812 CLAMP
Q38 DTC144EK NT-OSC-SW
Q39 2SK160 NT CLK-BUFF
Q40 2SK160 PAL CLK-BUFF
Q41 DTC144EK PAL-OSC-SW
Q205 2SC1623 CLK-AMP
Q206 2SC1623 CLK-AMP
Q207 2SC1623 CLK-AMP
Q202 2SC2712 CLK-BUFF
Q203 2SC2712 CLK-BUFF
Q201 DTC144EK NT-CLK-SW
Q204 DTC144EK PAL-CLK SW
Q208 DTC144EK GEN-SW
Q209 2SC2712 NT/PAL Y-BUFF
Q210 2SA812 NT/PAL Y-BUFF
Q212 2SC2712 NT/PAL C-BUFF
Q213 2SA812 NT/PAL C-BUFF
Q305 2SC2712 NT3.58-SW
Q310 2SC2712 NT4.43-SW
Q305 DTC144EK CODE-2-SW
Q306 DTC144EK CODE-1-SW
BPF1
BPF2
DL102
DL101
TH101
FL2
FL3
LPF
TP3
TB1
SUB HUE
SECAM ID
3.58M
4.43M
12V
5V
-5V
+5V

8
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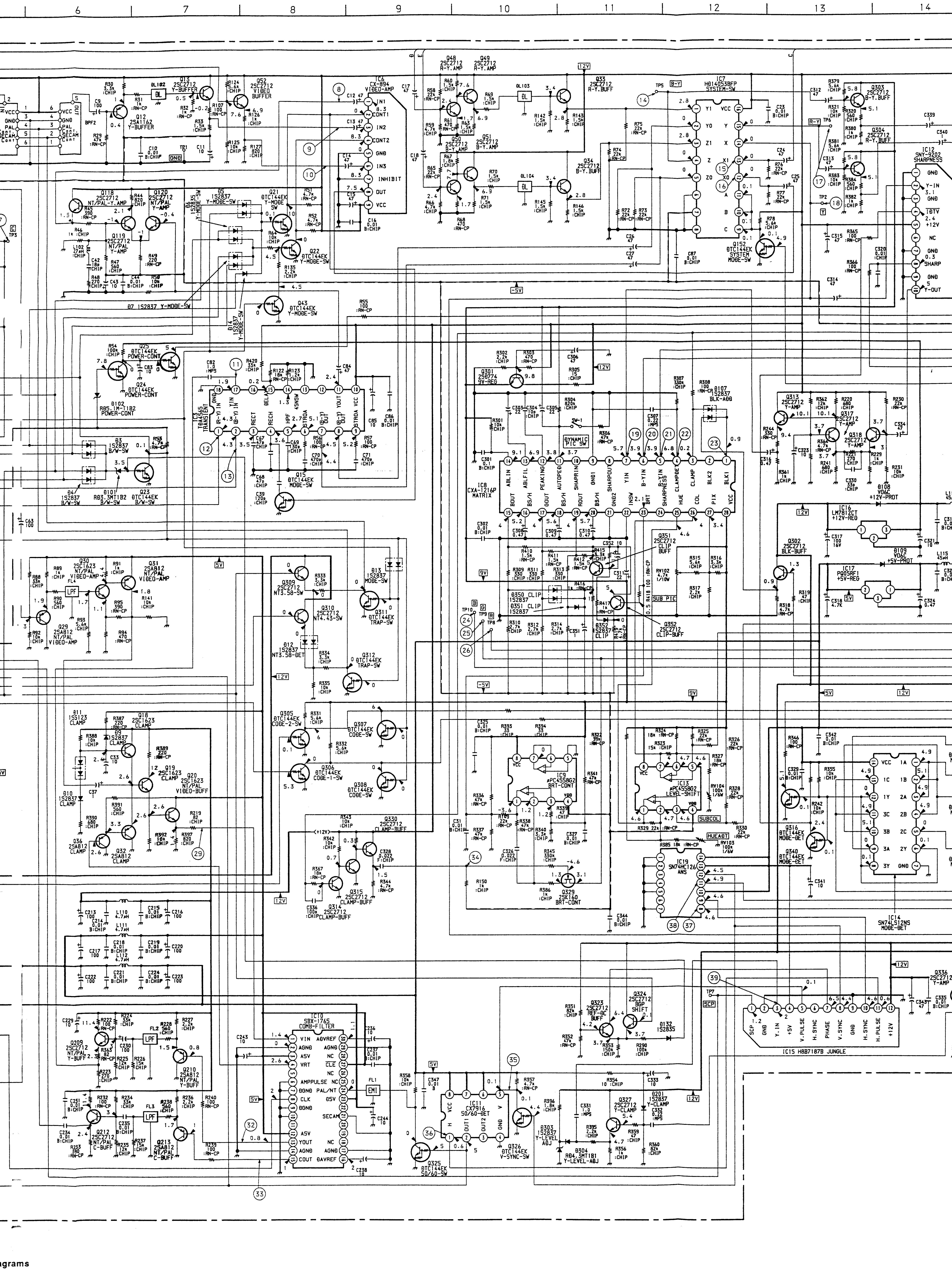
15
16
BA-1 96P
1A
1B
1C
2A VIDEO/YC
2B RGB/VIDEO
2C BP CLAMP
3A H.SYNC
3B
3C V.SYNC
4A GND
4B GND
4C S-(Y)
5A VIDEO
5B GND
5C S-(C)
6A
6B
6C
7A GND
7B GND
7C GND
8A (R) <VIDEO>
8B GND
8C +15.5V
9A (G) <VIDEO>
9B GND
9C +5.7V
10A (B) <VIDEO>
10B GND
10C -5V
11A GND
11B GND
11C GND
15A CODE 2
15C CODE 1
16A GND
16C SECAM ON
17A HUE
17C SHARP
18A GND
18C COL
20A GND
21A PAWER CONT.
21C PAWER CONT.
22A VIDEO TBTV
23A NTSC TBTV
23B GND
23C C.BLK
24A CODE 3
24B GND
TO BM BOARD BM-4
IC6 CX-894 VIDEO-AMP
IC7 HD14053BFP SYSTEM-SW
IC8 CXA-1216P MATRIX
IC9 μPC4558G2 BRT-CONT
IC10 SBX-1765 COMB-FILTER
IC11 CX7916 50/60-DET
IC12 SNY-9202 SHARPNESS
IC13 μPC4558G2 LEVEL-SHIFT
IC14 SN74LS12NS MODE-DET
IC15 HD81878 JUNGLE
IC16 LM7812CT +12V-REG
IC17 PQ05RF1 +5V-REG
IC19 SN74HC126 ANS
DYNAMIC PIC SW
SUB PIC
SUBCOL
HUEADT
BA
(4·STD DECODER)
B-SS1557<U/C>-BA.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12
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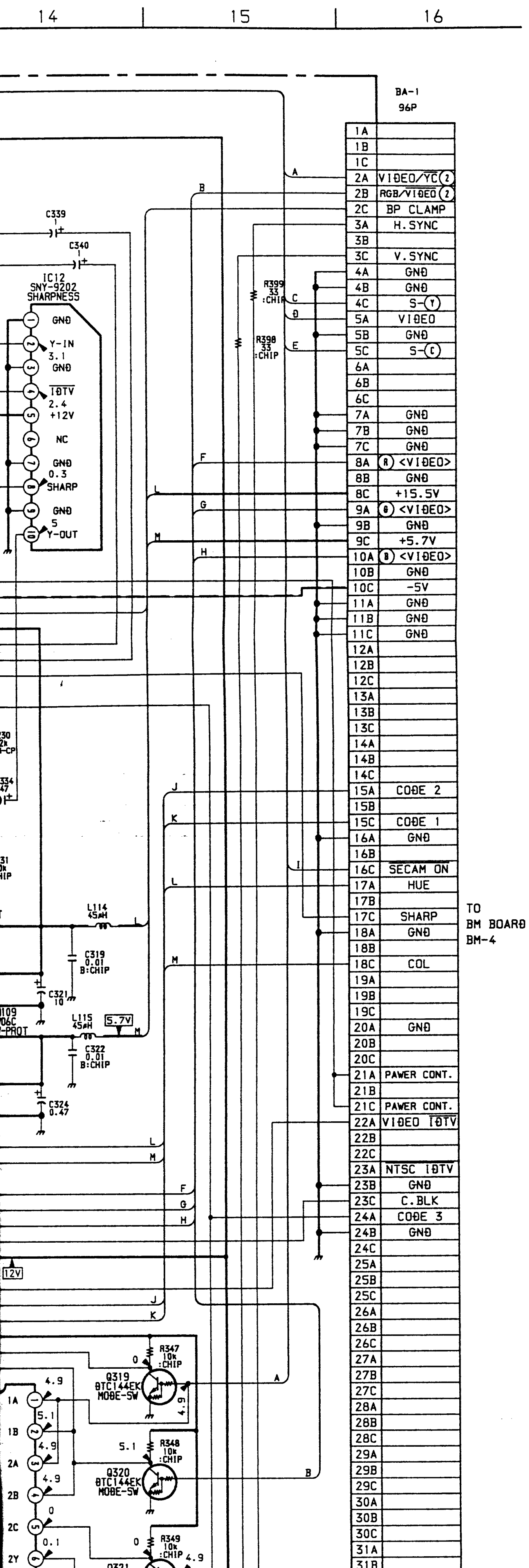
14
IC6 CX-894 VIDEO-AMP
IN1
CONT1
IN2
CONT2
GND
IN3
INHIBIT
OUT
VCC
IC7 HD14053BFP SYSTEM-SW
IC12 SNY-9202 SHARPNESS
IC3 TDA4565 TRANSIENT
IC8 CXA-1216P MATRIX
IC9 μPC4558G2 BRT-CONT
IC13 μPC4558G2 LEVEL-SHIFT
IC19 SN74HC126 ANS
IC14 SN74LS12NS MODE-DET
IC16 LM7812CT +12V-REG
IC17 PQ05RF1 +5V-REG
IC10 SBX-1765 COMB-FILTER
IC11 CX7916 50/60-DET
IC15 H8B7187B JUNGLE
Q13 2SC2712 Y-BUFFER
Q52 2SC2712 VIDEO BUFFER
Q12 2SA1162 Y-BUFFER
Q48 2SC2712 R-Y.AMP
Q49 2SC2712 R-Y.AMP
Q50 2SC2712 B-Y.AMP
Q51 2SC2712 B-Y.AMP
Q33 2SC2712 R-Y.BUFF
Q34 2SC2712 B-Y.BUFF
Q152 DTC144EK SYSTEM MODE-SW
Q303 2SC2712 B-Y.BUFF
Q304 2SC2712 R-Y.BUFF
Q118 2SC2712 NT/PAL-Y.AMP
Q119 2SC2712 NT/PAL Y-AMP
Q120 2SC2712 NT/PAL Y-AMP
Q21 DTC144EK Y-MODE SW
Q22 DTC144EK Y-MODE-SW
Q43 DTC144EK Y-MODE-SW
Q25 DTC144EK POWER-CONT
Q24 DTC144EK POWER-CONT
Q23 DTC144EK B/W-SW
Q15 DTC144EK MODE-SW
Q301 2SD774 9V-REG
Q313 2SC2712 Y-AMP
Q317 2SC2712 Y-AMP
Q318 2SC2712 Y-AMP
Q302 2SC2712 BLK-BUFF
Q351 2SC2712 CLIP BUFF
Q352 2SC2712 CLIP-BUFF
Q30 2SC1623 NT/PAL VIDEO-AMP
Q31 2SA812 NT/PAL VIDEO-AMP
Q29 2SA812 NT/PAL VIDEO-AMP
Q309 2SC2712 NT3.58-SW
Q310 2SC2712 NT4.43-SW
Q311 DTC144EK TRAP-SW
Q312 DTC144EK TRAP-SW
Q305 DTC144EK CODE-2-SW
Q306 DTC144EK CODE-1-SW
Q307 DTC144EK CODE-SW
Q308 DTC144EK CODE-SW
Q18 2SC1623 CLAMP
Q19 2SC1623 CLAMP
Q20 2SC1623 NT/PAL VIDEO-BUFF
Q36 2SA812 CLAMP
Q32 2SA812 CLAMP
Q330 2SC2712 CLAMP-BUFF
Q314 2SC2712 CLAMP-BUFF
Q315 2SC2712 CLAMP-BUFF
Q329 2SK160 BRT-CONT
Q316 DTC144EK MODE-DET
Q340 DTC144EK MODE-DET
Q336 2SC2712 Y-AMP
Q323 2SC2712 REF-DC BUFF
Q324 2SC2712 BGP SHIFT
Q327 2SC2712 Y-CLAMP
Q326 DTC144EK V-SYNC-SW
Q325 DTC144EK 50/60-SW
Q209 2SC2712 NT/PAL Y-BUFF
Q210 2SA812 NT/PAL Y-BUFF
Q212 2SC2712 NT/PAL C-BUFF
Q213 2SA812 NT/PAL C-BUFF
RV102 4.7k 1/10W
RV103 100k 1/6W
RV104 100k 1/6W
RV4 3MT1B1 Y-LEVEL-ADJ
DYNAMIC PIC SW
SUB PIC
SUBCOL
HUEADJ
SCP
12V
9V
5V
-5V


14
15
16
BA-1
96P
1A
1B
1C
2A VIDEO/YC②
2B RGB/VIDEO②
2C BP CLAMP
3A H.SYNC
3B
3C V.SYNC
4A GND
4B GND
4C S-Ⓨ
5A VIDEO
5B GND
5C S-Ⓒ
7A GND
7B GND
7C GND
8A Ⓡ <VIDEO>
8B GND
8C +15.5V
9A Ⓖ <VIDEO>
9B GND
9C +5.7V
10A Ⓑ <VIDEO>
10B GND
10C -5V
11A GND
11B GND
11C GND
15A CODE 2
15C CODE 1
16A GND
16C SECAM ON
17A HUE
17C SHARP
18A GND
18C COL
20A GND
21A PAWER CONT.
21C PAWER CONT.
22A VIDEO IDTV
23A NTSC IDTV
23B GND
23C C.BLK
24A CODE 3
24B GND
TO
BM BOARD
BM-4
C339
C340
IC12
SNY-9202
SHARPNESS
GND
Y-IN
3.1
GND
IDTV
2.4
+12V
NC
GND
0.3
SHARP
GND
5
Y-OUT
R399
33
:CHIP
R398
33
:CHIP
L114
45μH
C319
0.01
B:CHIP
C321
10
L115
45μH
5.7V
C322
0.01
B:CHIP
C324
0.47
12V
Q319
DTC144EK
MODE-SW
R347
10k
:CHIP
Q320
DTC144EK
MODE-SW
R348
10k
:CHIP
Q321
DTC144EK
MODE-SW
R349
10k
:CHIP
R350
10
:CHIP
C346
10
D301 1S2837 LEVEL-SHIFT
Q337
2SA812
Y-AMP
Q336
2SC2712
Y-AMP
Q338
2SC2712
Y-AMP
R373
100
:RN-CP
R374
1.5k
:CHIP
R378
56k
:CHIP
C338
10
R370
100
:RN-CP
R375
100
:RN-CP
R377
27k
:CHIP
C335
0.01
B:CHIP
C343
47
R369
3.3k
:CHIP
C337
68
:CHIP
R376
3.3k
:CHIP
R368
820
:CHIP
R371
3.9k
:RN-CP
R372
100
:RN-CP
BA
(4·STD DECODER)
B-SS1557<U/C>-BA.

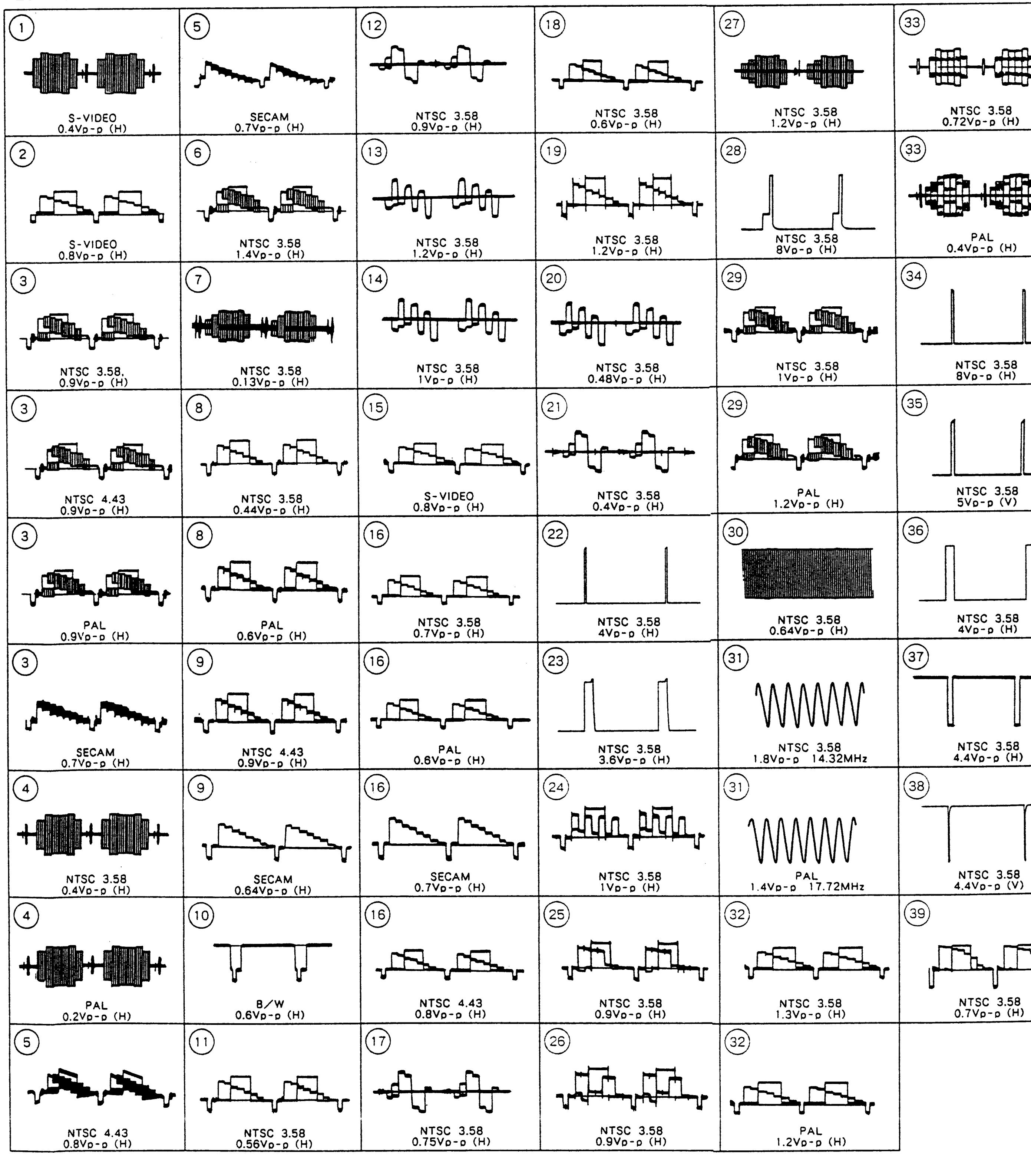
• BA BOARD

REF.	Pin. No.	NTSC 3.58	PAL	SECAM	NTSC 4.43
IC1	②	0	0	–0.7	–0.7
	⑪	12	12	0	0
	⑫	0	0	–0.7	–0.7
	⑭	0	0	–0.7	–0.7
	⑮	0	0	–0.7	–0.7
IC2	⑤	6.1	5.8	4.2	7.6
	⑦	6	5.5	4.2	7.3
	⑲	2.4	2.4	5.6	2.4
	⑳	7.5	5.7	5.7	7.5
	㉑	5.6	7.7	6.8	5.6
	㉕	0.1	0.1	0.1	5.8
	㉖	5.8	0.1	0.1	0.1
	㉗	0.1	0.1	5.8	0.1
	㉘	0.1	5.8	0.1	0.1
IC6	②	10	0	0	10
	④	0	10	10	0
IC10	㉔	0	3.6	3.6	0
IC11	②	5	0	0	5

REF.		NTSC 3.58	PAL	SECAM	NTSC 4.43
Q7	B	0	0	–0.8	–0.8
	C	–	–	–	–
	E	–0.8	–0.8	–1.4	–1.4
Q8	B	0.1	0.1	5.3	5.3
	C	12	12	0	0
	E	–	–	–	–
Q16	B	5.4	0	0	5.4
	C	0	0	0	0
	E	–	–	–	–
Q17	B	5.3	5.3	0.2	5.3
	C	4.7	4.7	5	4.7
	E	–	–	–	–
Q21	B	0.1	0.1	5.3	5.3
	C	0	0	0	0
	E	–	–	–	–
Q22	B	4.5	4.5	0.5	0.5
	C	0	0	10	10
	E	–	–	–	–
Q27	B	4.9	0	0	4.9
	C	0	0	0	0
	E	–	–	–	–
Q37	B	5	0	0	5
	C	0	0	0	0
	E	–	–	–	–
Q38	B	5.7	0	0	0
	C	0	11.7	11.7	11.7
	E	–	–	–	–
Q41	B	0	5.9	0	5.1
	C	11.8	0	11.8	0
	E	–	–	–	–
Q43	B	0	0	0	0
	C	4.5	4.5	0.5	0.5
	E	–	–	–	–
Q45	B	0	5.4	0	0
	C	0	0	0	0
	E	–	–	–	–
Q201	B	0	5.2	0	5.2
	C	5.8	0	5.8	0
	E	–	–	–	–
Q202	B	5.8	0	5.8	0
	C	–	–	–	–
	E	5.2	5.1	5.2	5.1

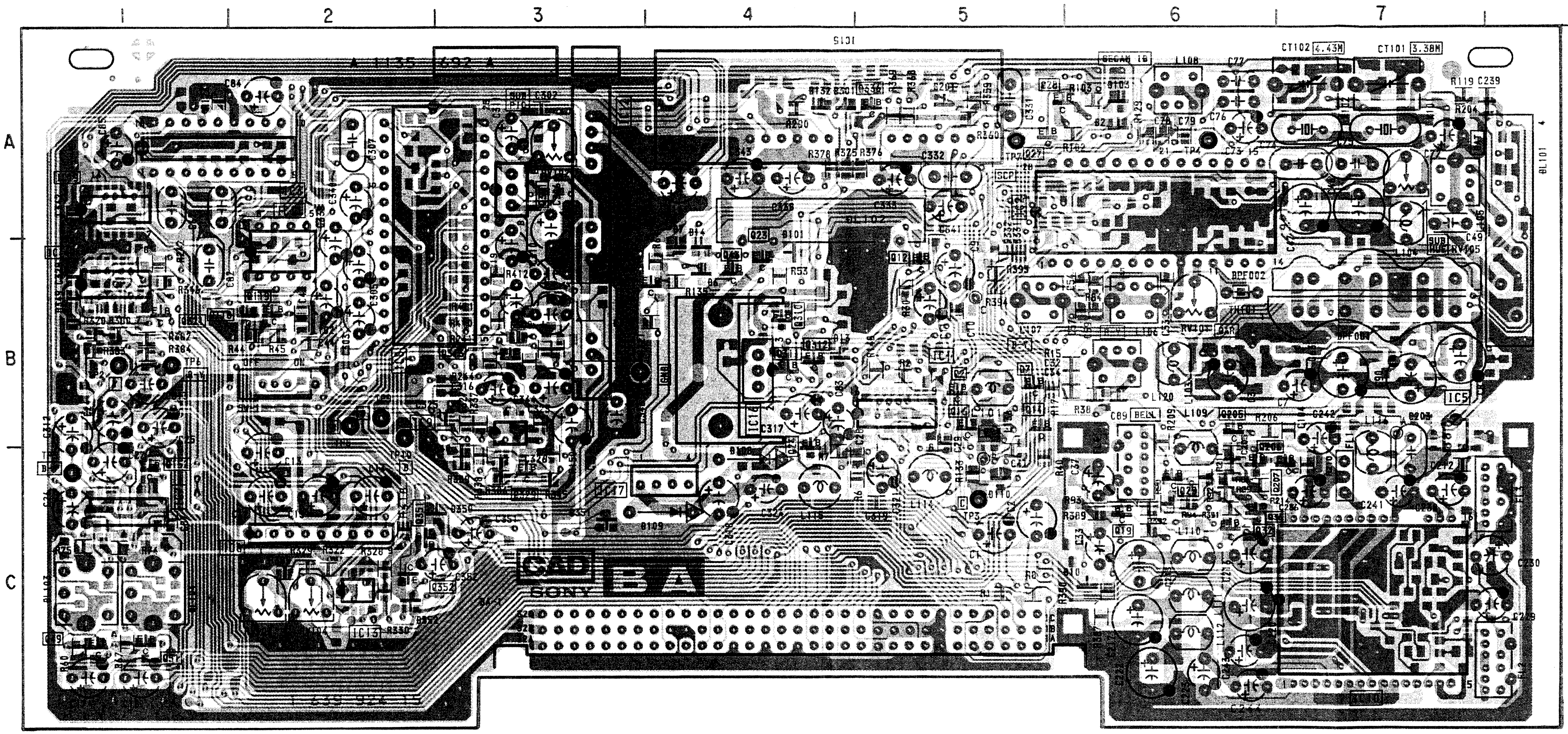
REF.		NTSC 3.58	PAL	SECAM	NTSC 4.43
Q203	B	0	5.8	5.8	5.8
	C	–	–	–	–
	E	5.2	5.1	5.2	5.1
Q204	B	5.8	0	0	0
	C	0	5.8	5.8	5.8
	E	–	–	–	–
Q208	B	0	0	0	0
	C	1.5	1.4	0	1.5
	E	–	–	–	–
Q305	B	0.1	5.8	0.1	0.1
	C	6	0	6	6
	E	–	–	–	–
Q306	B	5.3	0.1	0.1	5.3
	C	0	6	6	0
	E	–	–	–	–
Q307	B	0	0	0	0
	C	6	0	6	6
	E	–	–	–	–
Q308	B	0	0	0	0
	C	0	6	6	6
	E	–	–	–	–
Q309	B	0	0	5.7	0
	C	–	–	–	–
	E	0	0	5.1	0
Q310	B	0	5.1	0	5.1
	C	–	–	–	–
	E	0	4.5	1.4	4.5
Q311	B	0	0.5	0.2	0.5
	C	0	0	3.8	2.8
	E	–	–	–	–
Q312	B	0	0.5	0.2	0.5
	C	0	2.8	3.2	2.8
	E	–	–	–	–
Q325	B	5	0	0	5
	C	0	3.6	3.6	0
	E	–	–	–	–
Q350	B	0.1	0	5.9	0.1
	C	1.6	1.5	0	1.6
	E	–	–	–	–

• BA BOARD WAVEFORMS

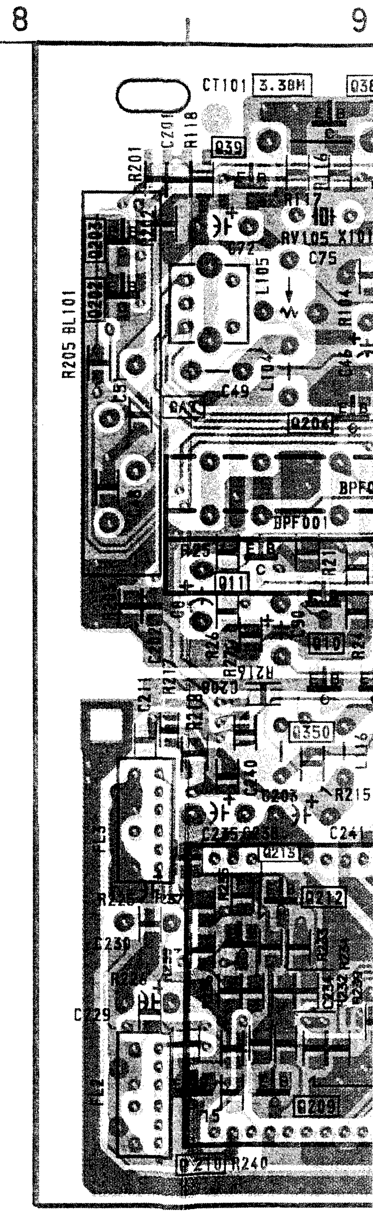


BA [4・STD DECODER]

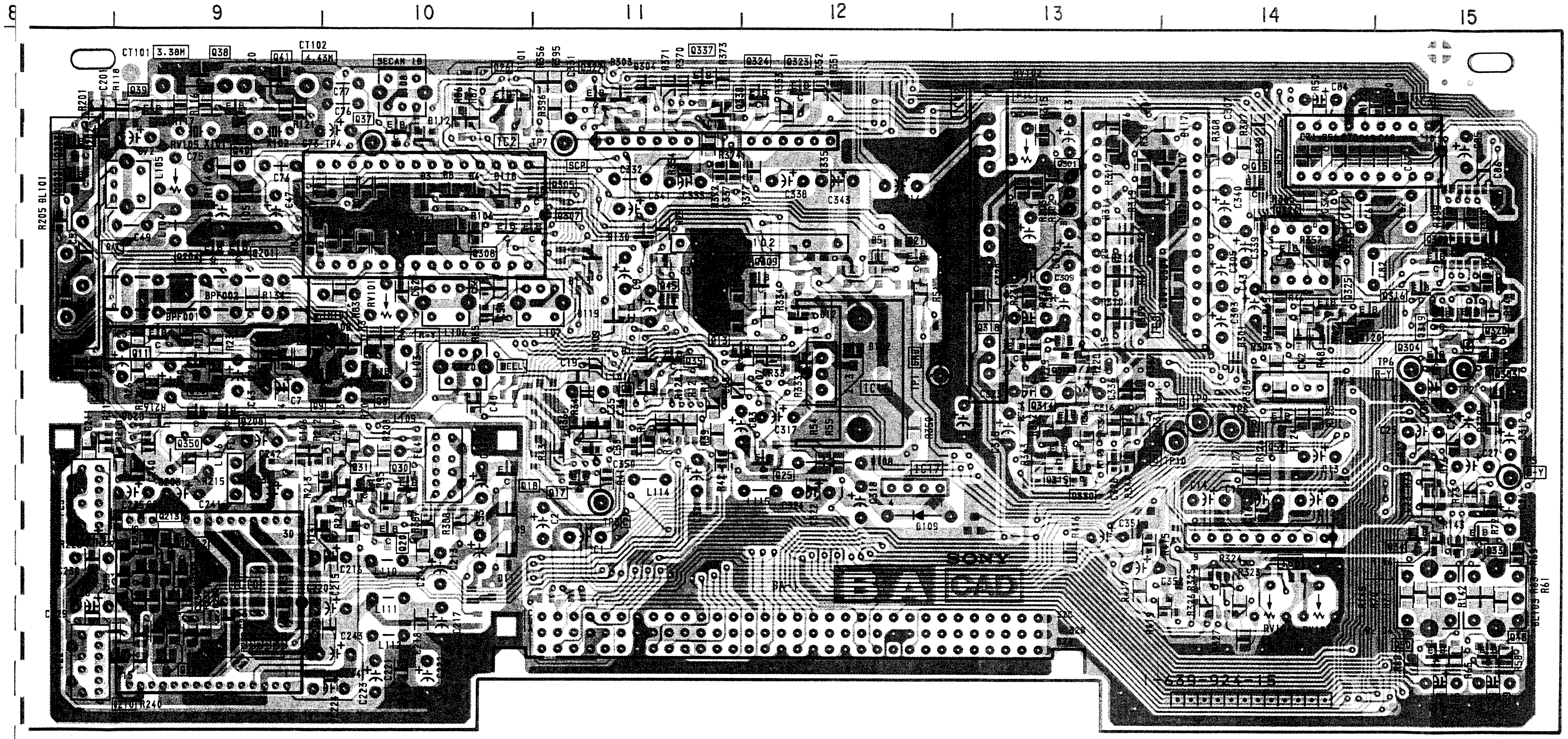
- BA BOARD - 〈Component Side〉


1
2
3
4
5
6
7
A
B
C
IC15
CT102 4.43M
CT101 3.58M
BL101
BPF002
BPF001
IC5
IC13
IC14
BELL
SONY
BA

〈Conductor Side〉


8
9
CT101 3.38M
BL101
BPF001

(Conductor Side)

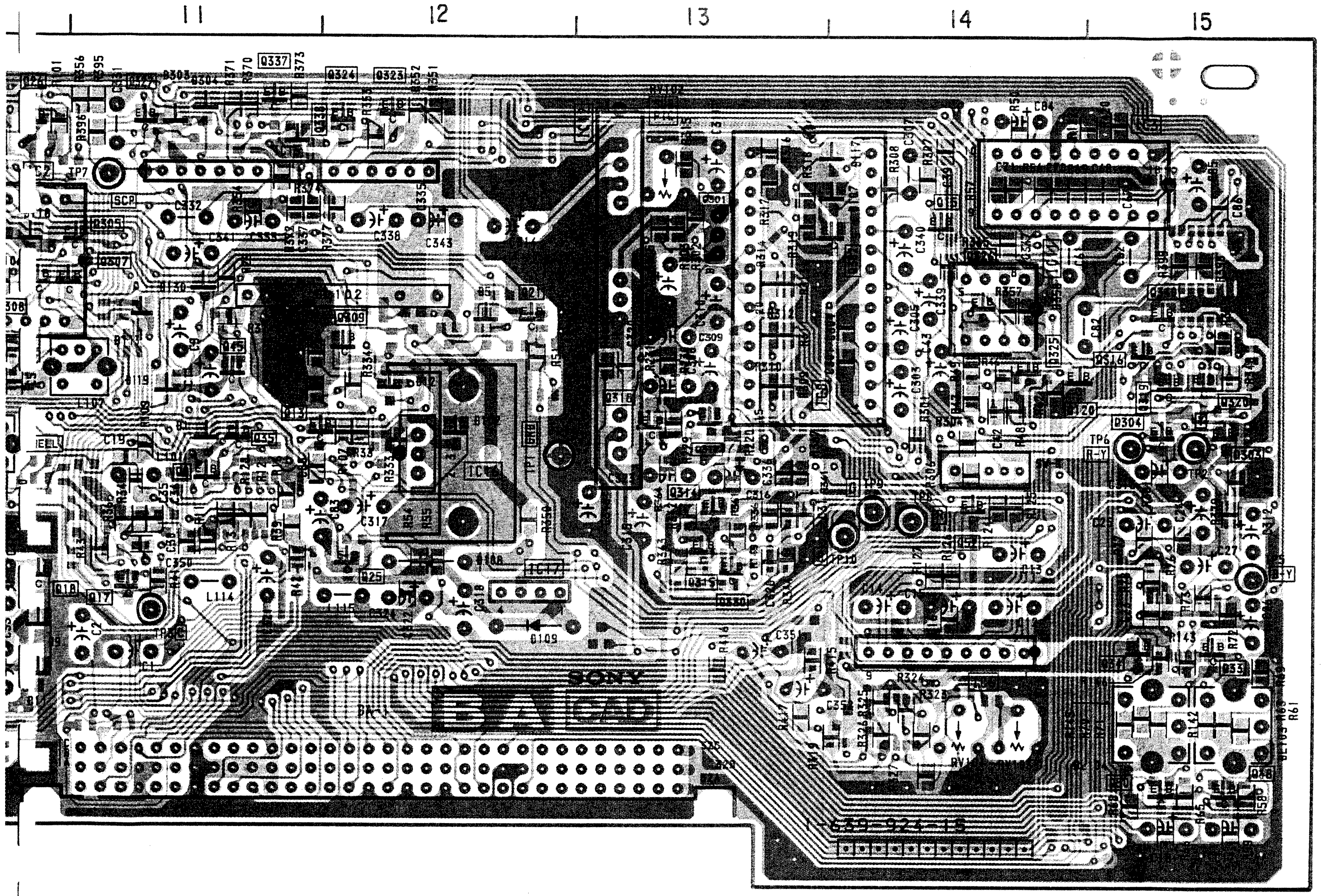


BA BOARD

IC	
IC1	B - 5
IC2	A - 6, A - 10
IC3	A - 1, A - 14
IC5	B - 7
IC6	C - 2, C - 14
IC7	C - 1
IC8	A - 2, A - 13
IC9	B - 3
IC10	C - 7, C - 9
IC11	B - 2, B - 14
IC12	B - 3, B - 13
IC13	C - 2
IC14	B - 1
IC15	A - 4, A - 11
IC16	B - 4, B - 12
IC17	C - 4, C - 12
IC19	A - 1
TRANSISTOR	
Q2	B - 5
Q3	B - 10
Q7	B - 5
Q8	B - 11
Q9	B - 9
Q10	B - 9
Q11	B - 9
Q12	B - 5
Q13	B - 11
Q14	B - 5
Q15	A - 14
Q16	B - 5
Q17	C - 11
Q18	C - 10
Q19	C - 6
Q20	C - 10
Q21	B - 12
Q22	B - 4
Q23	B - 4
Q24	B - 4
Q25	C - 12
Q26	A - 10
Q27	A - 5
Q28	A - 5
Q29	C - 6
Q30	C - 10
Q31	C - 10
Q32	C - 6
Q33	C - 15
Q34	C - 15
Q35	B - 11
Q36	C - 6
Q37	A - 10
Q38	A - 9
Q39	A - 9
Q40	A - 9
Q41	A - 9
Q43	B - 4
Q45	B - 11
Q48	C - 15
Q49	C - 1
Q50	C - 15
Q51	C - 1
Q52	B - 14
Q118	B - 2
Q119	B - 2
Q120	B - 14
Q152	C - 1
Q201	B - 9
Q202	A - 8
Q203	A - 8
Q204	B - 9
Q205	B - 6
Q206	C - 6
Q207	C - 7
Q208	B - 9
Q209	D - 9
Q210	D - 9
Q212	C - 9
Q213	C - 9
Q301	A - 3, A -
Q302	A - 14
Q303	B - 15
Q304	B - 15
Q305	A - 11
Q306	A - 10
Q307	A - 10
Q308	A - 10
Q309	B - 12
Q310	B - 4
Q311	B - 4
Q312	B - 4
Q313	B - 3
Q314	B - 13
Q315	C - 13
Q316	B - 15
Q317	B - 13
Q318	B - 13
Q319	B - 15
Q320	B - 12
Q321	B - 1
Q323	A - 12
Q324	A - 12
Q325	B - 14
Q326	B - 14
Q327	A - 11
Q329	C - 3
Q330	C - 13

Note :

- ░ : Pattern from the side which enables seeing.
- ▒ : Pattern of the rear side.



Note :

- ░ : Pattern from the side which enables seeing.
- ▒ : Pattern of the rear side.

BA BOARD

IC	
IC1	B - 5
IC2	A - 6, A - 10
IC3	A - 1, A - 14
IC5	B - 7
IC6	C - 2, C - 14
IC7	C - 1
IC8	A - 2, A - 13
IC9	B - 3
IC10	C - 7, C - 9
IC11	B - 2, B - 14
IC12	B - 3, B - 13
IC13	C - 2
IC14	B - 1
IC15	A - 4, A - 11
IC16	B - 4, B - 12
IC17	C - 4, C - 12
IC19	A - 1
TRANSISTOR	
Q2	B - 5
Q3	B - 10
Q7	B - 5
Q8	B - 11
Q9	B - 9
Q10	B - 9
Q11	B - 9
Q12	B - 5
Q13	B - 11
Q14	B - 5
Q15	A - 14
Q16	B - 5
Q17	C - 11
Q18	C - 10
Q19	C - 6
Q20	C - 10
Q21	B - 12
Q22	B - 4
Q23	B - 4
Q24	B - 4
Q25	C - 12
Q26	A - 10
Q27	A - 5
Q28	A - 5
Q29	C - 6
Q30	C - 10
Q31	C - 10
Q32	C - 6
Q33	C - 15
Q34	C - 15
Q35	B - 11
Q36	C - 6
Q37	A - 10
Q38	A - 9
Q39	A - 9
Q40	A - 9
Q41	A - 9
Q43	B - 4
Q45	B - 11
Q48	C - 15
Q49	C - 1
Q50	C - 15
Q51	C - 1
Q52	B - 14
Q118	B - 2
Q119	B - 2
Q120	B - 14
Q152	C - 1
Q201	B - 9
Q202	A - 8
Q203	A - 8
Q204	B - 9
Q205	B - 6
Q206	C - 6
Q207	C - 7
Q208	B - 9
Q209	D - 9
Q210	D - 9
Q212	C - 9
Q213	C - 9
Q301	A - 3, A - 13
Q302	A - 14
Q303	B - 15
Q304	B - 15
Q305	A - 11
Q306	A - 10
Q307	A - 10
Q308	A - 10
Q309	B - 12
Q310	B - 4
Q311	B - 4
Q312	B - 4
Q313	B - 3
Q314	B - 13
Q315	C - 13
Q316	B - 15
Q317	B - 13
Q318	B - 13
Q319	B - 15
Q320	B - 12
Q321	B - 1
Q323	A - 12
Q324	A - 12
Q325	B - 14
Q326	B - 14
Q327	A - 11
Q329	C - 3
Q330	C - 13
Q336	A - 5
Q337	A - 11
Q338	A - 11
Q340	B - 15
Q350	B - 9
Q351	C - 2
Q352	C - 2
DIODE	
D1	B - 11
D2	A - 6
D3	A - 10
D4	A - 10
D5	B - 12
D6	B - 4
D7	B - 4
D8	A - 10
D9	C - 10
D10	C - 6
D11	C - 10
D12	B - 12
D13	B - 4
D14	B - 4
D110	B - 4
D102	B - 12
D103	A - 6
D107	A - 14
D108	C - 4, C - 12
D109	C - 4, C - 12
D110	C - 5
D112	A - 10
D113	B - 11
D118	A - 10
D119	B - 11
D130	A - 11
D132	A - 4
D201	A - 5
D301	A - 4
D303	A - 11
D304	A - 11
D350	C - 3
D351	C - 3
D352	C - 2
VARIABLE RESISTOR	
CT101	A - 7
CT102	A - 7, A - 13
RV101	B - 6, B - 10
RV102	A - 3
RV103	C - 2
RV104	C - 2
RV105	A - 7, A - 9

BB BOARD

IC	
IC401	A－1, F－1
IC402	H－7, A－7
IC403	F－4, B－4
IC404	H－2, B－2
IC405	H－2, C－2
IC407	A－2
IC408	C－3
IC409	C－5
IC410	B－5
IC411	B－5
IC412	C－3, E－3
IC413	G－7, A－7
IC414	B－7, G－7
IC415	C－7, F－7
IC416	C－7, E－7
IC417	C－7, E－7
IC418	B－7, G－7
IC419	B－7, F－7
IC420	C－7, F－7
IC422	C－3
IC423	B－3
IC424	C－2

TRANSISTOR	
Q401	H－6, A－6
Q402	F－4, B－4
Q403	H－2
Q404	H－2
Q405	H－2
Q450	E－3
Q451	E－4
Q452	E－4
Q453	E－4
Q454	E－4
Q456	E－5
Q457	E－3
Q501	F－1
Q502	C－1
Q503	E－1
Q504	C－1
Q506	G－2
Q507	G－2
Q508	G－2
Q509	F－2
Q510	F－2
Q511	F－2
Q512	F－1
Q513	F－2
Q514	F－1
Q515	F－2
Q516	E－5
Q517	D－5
Q518	E－4
Q519	E－3
Q520	B－2
Q521	B－2
Q522	D－6
Q523	E－5
Q524	E－5
Q525	F－4
Q526	F－4
Q527	E－5
Q528	F－2
Q529	F－2
Q530	F－2
Q531	F－2
Q532	E－4
Q533	F－4
Q534	G－2, B－2
Q535	B－2
Q536	A－2
Q537	
Q538	F－2
Q539	E－6
Q540	G－3
Q541	C－6
Q542	C－6
Q543	C－6
Q544	C－6
Q545	C－4
Q546	A－2
Q547	E－7
Q548	E－1
Q549	E－2
Q550	F－2
Q551	F－2
Q552	B－3
Q553	F－5
Q650	G－6
Q651	G－5
Q652	G－5
Q653	G－5
Q654	G－5
Q656	E－6
Q700	F－5
Q701	B－5
Q702	B－5
Q703	B－5
Q704	B－5
Q705	F－5
Q706	F－6
Q707	B－6
Q708	F－6
Q709	F－6
Q710	F－4
Q741	C－1
Q750	F－5
Q751	B－5
Q752	F－5
Q753	F－5
Q754	F－6
Q755	F－5
Q756	F－6
Q757	F－4

DIODE	
D401	H－7, A－7
D402	F－4, B－4
D450	E－4
D451	F－3
D452	C－4
D501	F－1
D502	E－1
D503	F－1
D504	E－6
D505	
D506	G－2
D507	F－1
D508	E－1
D509	G－1
D510	H－1
D511	G－1
D512	G－2
D513	F－1
D514	F－1
D515	E－1
D516	E－5
D518	E－5
D520	E－5
D521	E－5
D522	E－5
D523	C－5
D524	H－2
D525	G－2
D526	B－3
D527	E－4
D528	C－2
D529	E－1
D530	C－5
D634	E－7
D652	E－6
D653	E－6

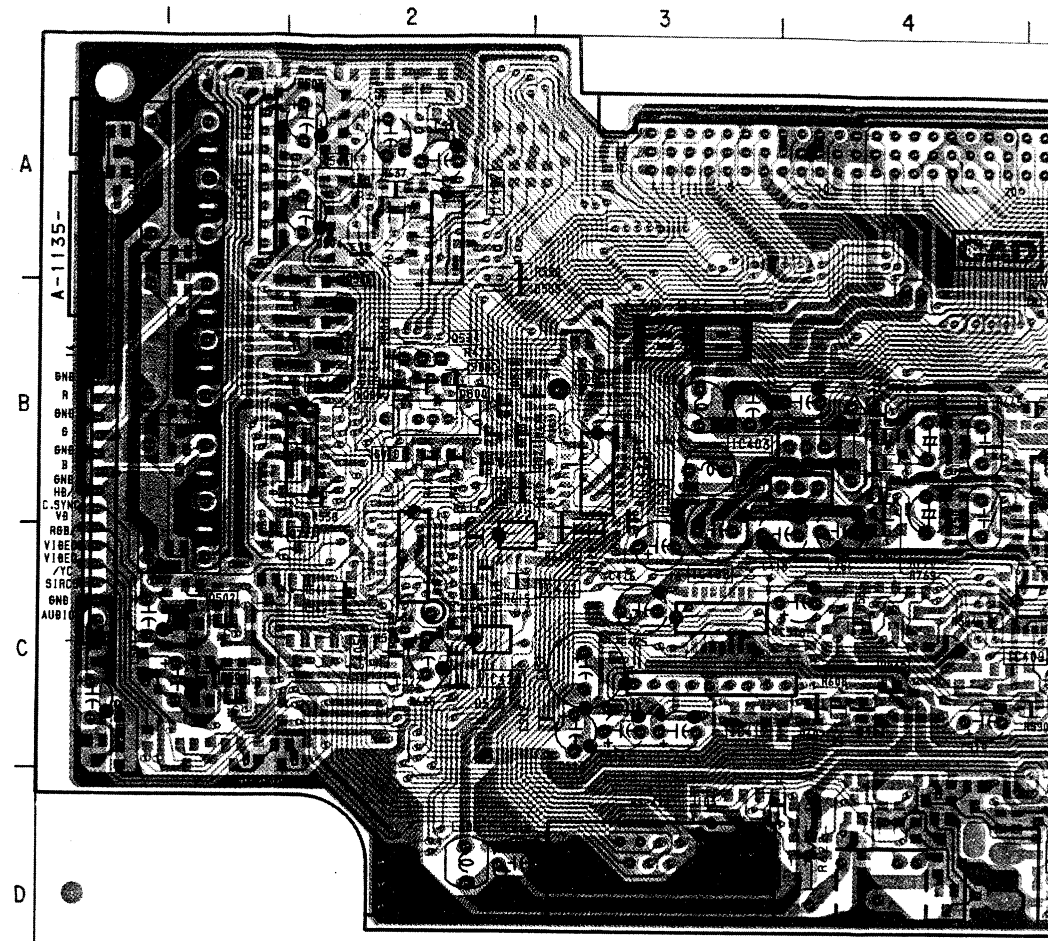
Note :

- ░ : Pattern from the side which enables seeing.
- ▓ : Pattern of the rear side.

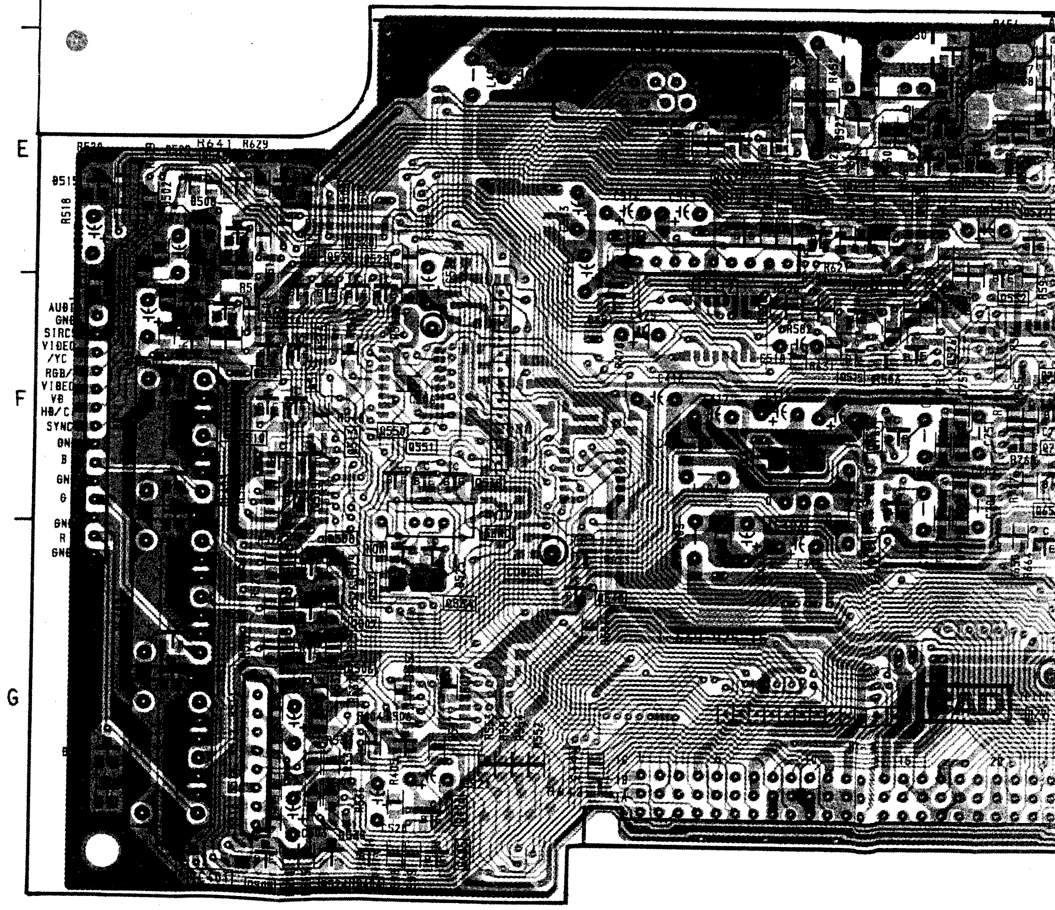
BB [SIGN
[R.G.

– BB BOARD –

⟨Component Side⟩

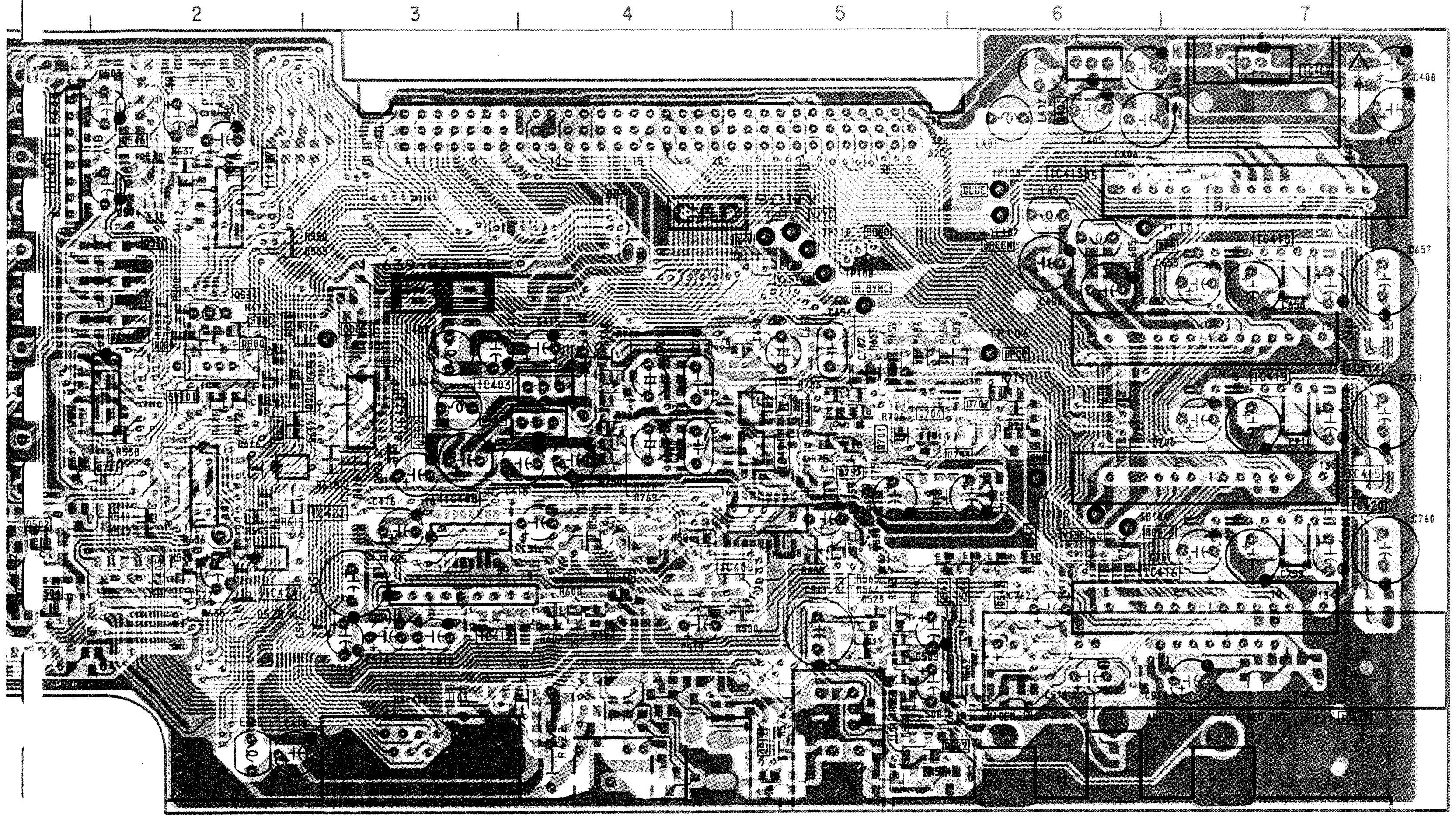


⟨Conductor Side⟩

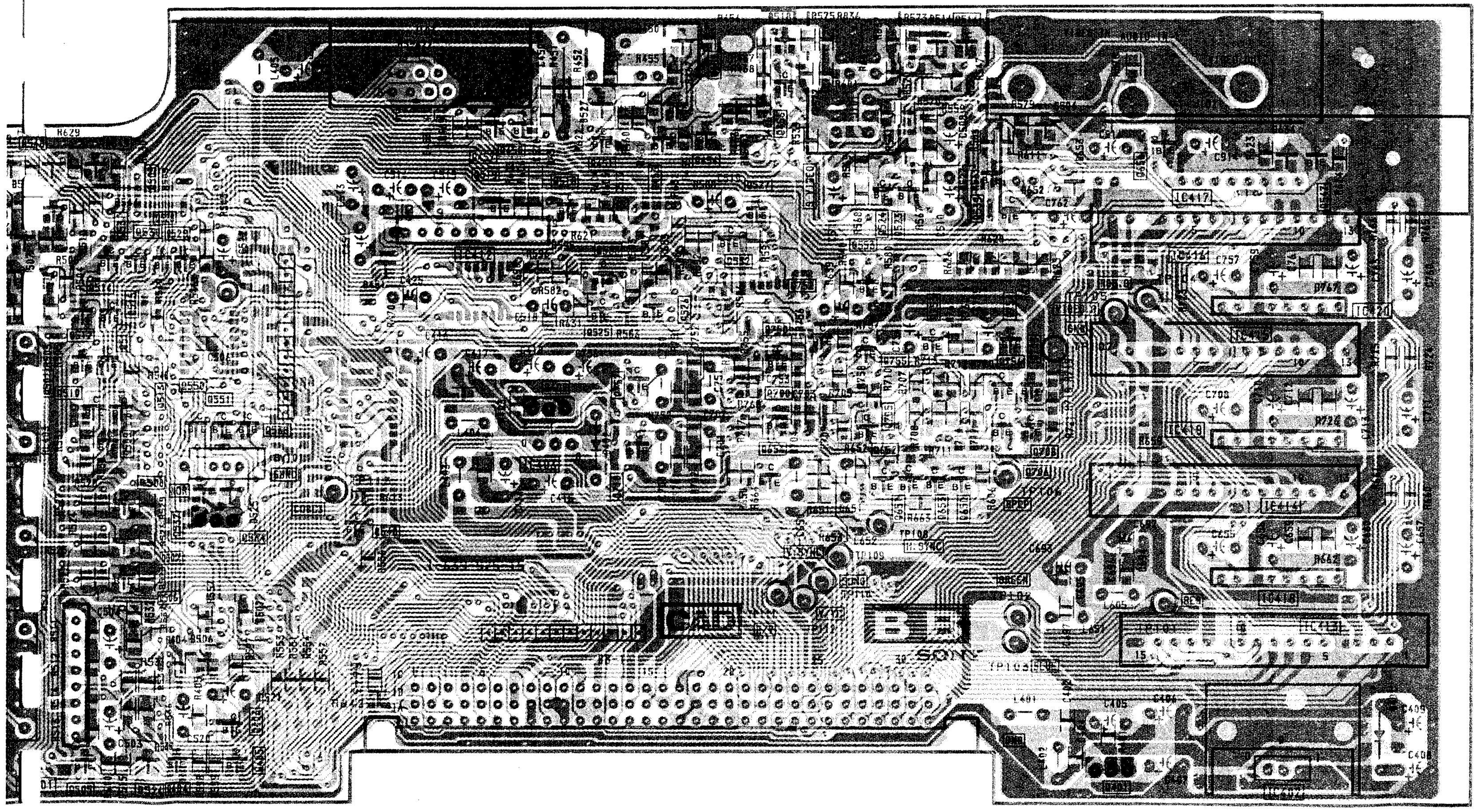


BB [SIGNAL SELECT, R.G.B PRE AMP]

〈Component Side〉

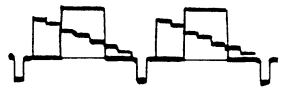

2
3
4
5
6
7
BB
CAD
IC403
IC413
IC418
IC419
IC416
C760
BLUE
GREEN
H.SYNC

〈Conductor Side〉


CAD
BB
SONY
IC417
IC414
IC418
IC413
C757
C700
C655
TP108
TP109

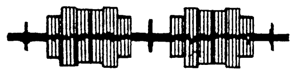
• BB BOARD WAVEFORMS

①



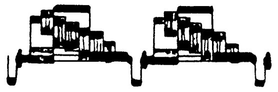
S-VIDEO
0.9Vp-p (H)

②



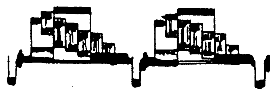
S-VIDEO
0.5Vp-p (H)

③



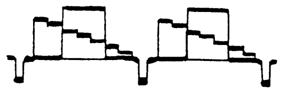
1Vp-p (H)

④



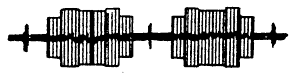
1Vp-p (H)

⑤



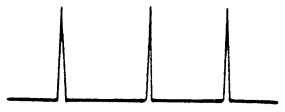
S-VIDEO
1Vp-p (H)

⑥



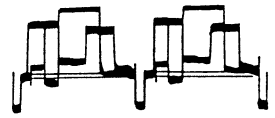
S-VIDEO
0.32Vp-p (H)

⑦



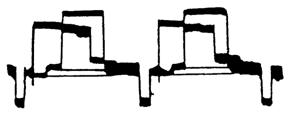
4.8Vp-p (H)

⑧



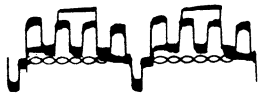
0.9Vp-p (H)

⑨



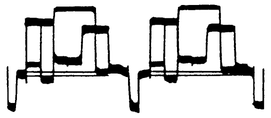
0.9Vp-p (H)

⑩



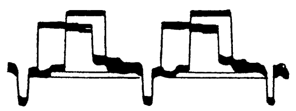
0.9Vp-p (H)

⑪



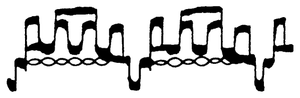
1.4Vp-p (H)

⑫



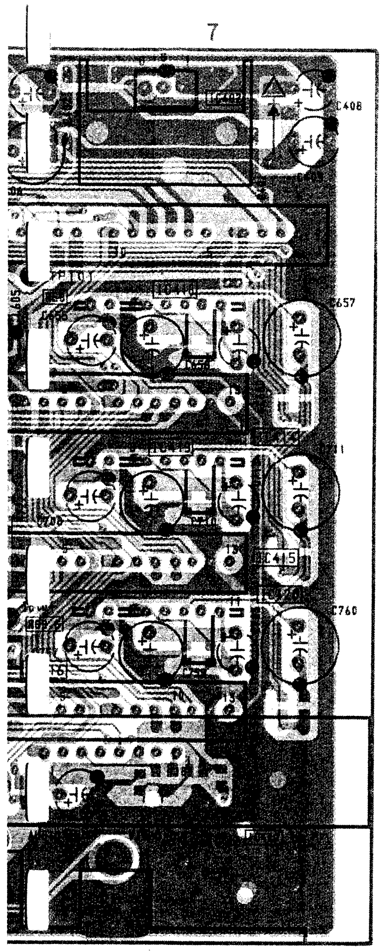
1.4Vp-p (H)

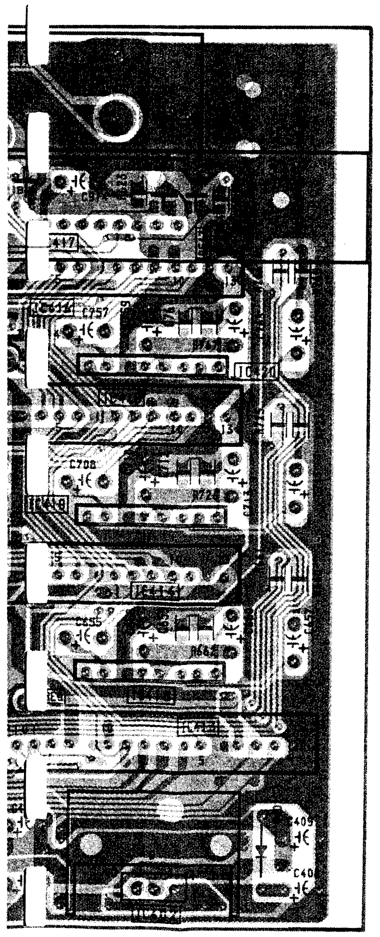
⑬



1.9Vp-p (H)

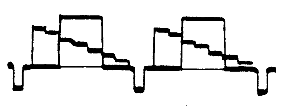
7





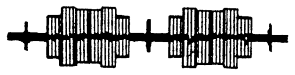
• BB BOARD WAVEFORMS

①



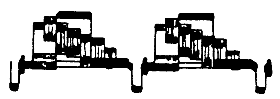
S-VIDEO
0.9Vp-p (H)

②



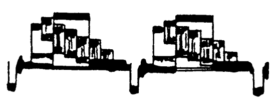
S-VIDEO
0.5Vp-p (H)

③



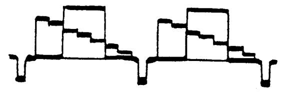
1Vp-p (H)

④



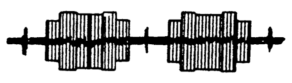
1Vp-p (H)

⑤



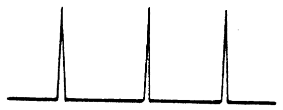
S-VIDEO
1Vp-p (H)

⑥



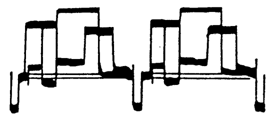
S-VIDEO
0.32Vp-p (H)

⑦



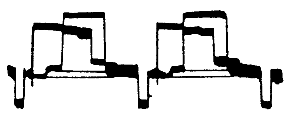
4.8Vp-p (H)

⑧



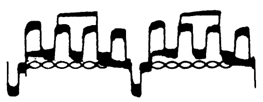
0.9Vp-p (H)

⑨



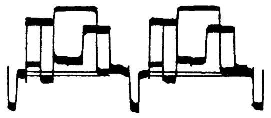
0.9Vp-p (H)

⑩



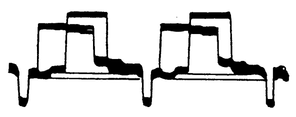
0.9Vp-p (H)

⑪



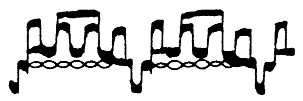
1.4Vp-p (H)

⑫



1.4Vp-p (H)

⑬

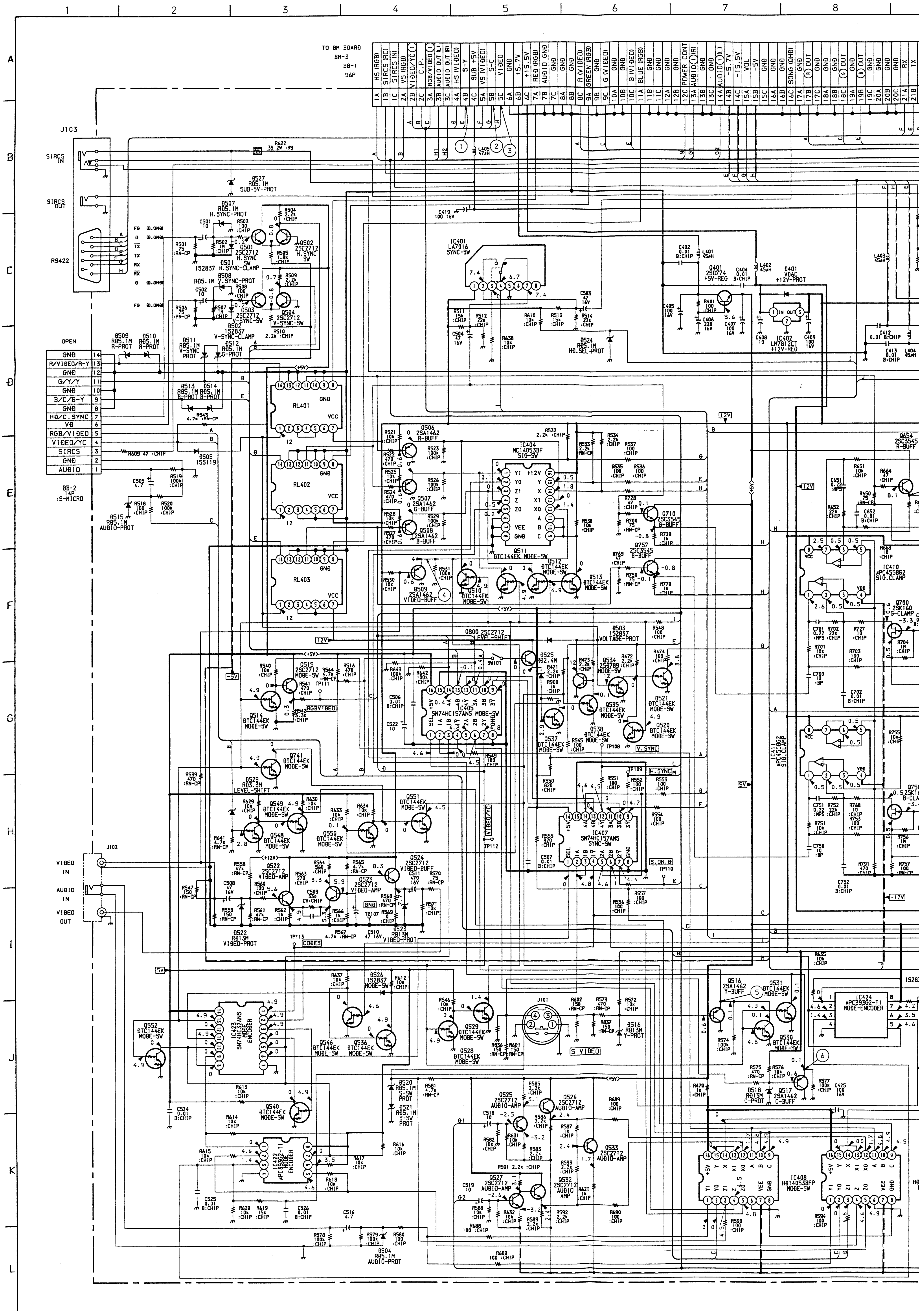


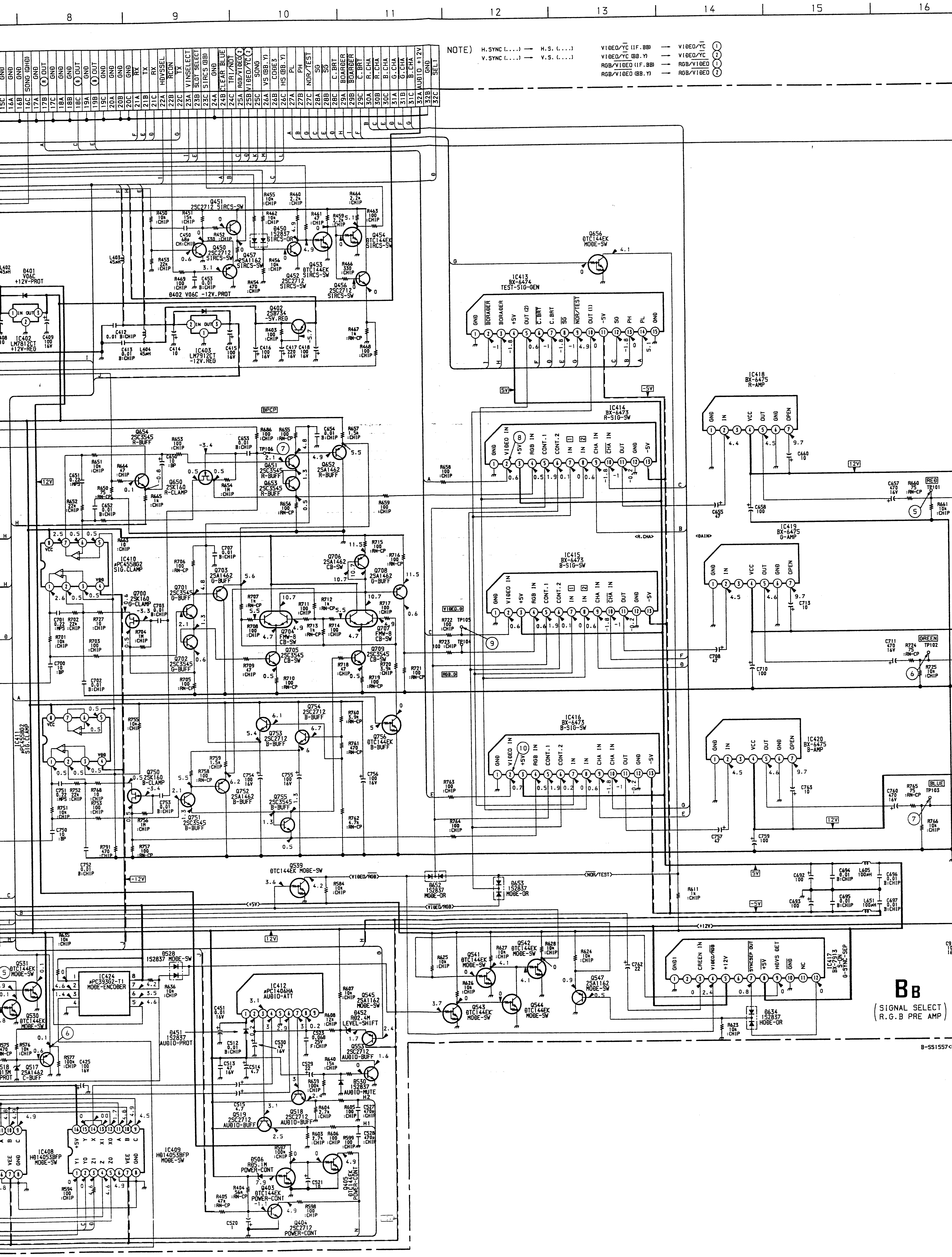
1.9Vp-p (H)

BB BOARD

REF.	Pin. No.	NTSC 3.58	S-VIDEO
IC404	②	0.1	1.6
	④	0.5	1.4
	⑤	0.1	1.4
	⑫	1.4	0.1
	⑭	1.8	0.5
	⑮	0.5	2
IC405	⑥	4.5	0
	⑦	4.8	0
IC408	③	4.5	0
	④	4.5	0
	⑩	4.6	4.8
	⑪	4.5	4.6
IC414	②	0.6	3.1
	⑪	–0.2	2.2
IC415	②	0.6	3.1
	⑪	–0.2	2.2
IC416	②	0.7	3.1
	⑪	–0.2	2.3
IC423	②	4.9	0

REF.		NTSC 3.58	S-VIDEO
Q509	B	0.6	0.6
	C	–	–
	E	1.4	0
Q516	B	0.6	0.6
	C	0.1	1.6
	E	–	–
Q517	B	0.6	0.6
	C	0.1	1.4
	E	–	–
Q528	B	4.9	0
	C	0	4.1
	E	–	–
Q529	B	0	1.4
	C	4.1	0
	E	–	–
Q530	B	4.9	0
	C	0.1	1.6
	E	–	–
Q531	B	4.9	0
	C	0.1	1.4
	E	–	–
Q539	B	3.6	2.4
	C	4.2	1.9
	E	–	–
Q656	B	0	4.9
	C	4.1	0
	E	–	–


TO BM BOARD
BM-3
BB-1
96P
HS (RGB)
SIRCS (RC)
SIRCS (N)
VS (RGB)
VIDEO/YC
C.P.
RGB/VIDEO
AUDIO OUT (L)
AUDIO OUT (R)
HS (VIDEO)
S-Y
SUB +5V
VS (VIDEO)
S-C
VIDEO
GND
+5.7V
+15.5V
RED (RGB)
AUDIO GND
R (VIDEO)
GREEN (RGB)
G (VIDEO)
B (VIDEO)
BLUE (RGB)
POWER CONT
AUDIO (R)
AUDIO (L)
-15.5V
VOL
-5.7V
-5V
SONG (QHD)
OUT
RX
TX
J103
SIRCS IN
SIRCS OUT
RS422
OPEN
GND
R/VIDEO/R-Y
G/Y/Y
B/C/B-Y
HD/C.SYNC
VD
RGB/VIDEO
VIDEO/YC
SIRCS
AUDIO
BB-2
14P
:S-MICRO
IC401
LA7016
SYNC-SW
Q401
2SD774
+5V-REG
IC402
LM7812CT
+12V-REG
RL401
RL402
RL403
IC404
MC14053BF
SIG-SW
IC405
SN74HC157ANS MODE-SW
IC407
SN74HC157ANS
SYNC-SW
IC410
μPC4558G2
SIG.CLAMP
IC411
μPC4558G2
SIG.CLAMP
IC423
SN74HC32ANS
MODE ENCODER
IC422
μPC3932-T1
MODE ENCODER
IC424
μPC3932-T1
MODE-ENCODER
IC408
HD14053BFP
MODE-SW
J101
S VIDEO
J102
VIDEO IN
AUDIO IN
VIDEO OUT
Q501 2SC2712 H.SYNC SW
Q502 2SC2712 H.SYNC SW
Q503 2SC2712 V-SYNC-SW
Q504 2SC2712 V-SYNC-SW
Q506 2SA1462 R-BUFF
Q507 2SA1462 G-BUFF
Q508 2SA1462 B-BUFF
Q509 2SA1462 VIDEO-BUFF
Q510 DTC144EK MODE-SW
Q511 DTC144EK MODE-SW
Q512 DTC144EK MODE-SW
Q513 DTC144EK MODE-SW
Q514 DTC144EK MODE-SW
Q515 2SC2712 MODE-SW
Q520 DTC144EK MODE-SW
Q521 DTC144EK MODE-SW
Q522 2SC2712 VIDEO-AMP
Q523 2SC2712 VIDEO-AMP
Q524 2SC2712 VIDEO-BUFF
Q525 2SC2712 AUDIO-AMP
Q526 2SC2712 AUDIO-AMP
Q527 2SC2712 AUDIO-AMP
Q532 2SC2712 AUDIO AMP
Q533 2SC2712 AUDIO-AMP
Q534 2SB709 MODE-SW
Q535 DTC144EK MODE-SW
Q537 DTC144EK MODE-SW
Q538 DTC144EK MODE-SW
Q516 2SA1462 Y-BUFF
Q517 2SA1462 C-BUFF
Q530 DTC144EK MODE-SW
Q531 DTC144EK MODE-SW
Q528 DTC144EK MODE-SW
Q529 DTC144EK MODE-SW
Q536 DTC144EK MODE-SW
Q540 DTC144EK MODE-SW
Q546 DTC144EK MODE-SW
Q548 DTC144EK MODE-SW
Q549 DTC144EK MODE-SW
Q550 DTC144EK MODE-SW
Q551 DTC144EK MODE-SW
Q552 DTC144EK MODE-SW
Q654 2SC3545 R-BUFF
Q700 2SK160 G-CLAMP
Q710 2SC3545 G-BUFF
Q741 DTC144EK MODE-SW
Q757 2SC3545 B-BUFF
Q800 2SC2712 LEVEL-SHIFT
D401 VO6C +12V-PROT
D503 1S2837 VOLTAGE-PROT
D505 1SS119
D507 RD5.1M H.SYNC-PROT
D508 RD5.1M V.SYNC-PROT
D518 RD13M C-PROT
D520 RD5.1M S-SW PROT
D521 RD5.1M S-SW PROT
D522 RD13M VIDEO-PROT
D523 RD13M VIDEO-PROT
D524 RD5.1M HD.SEL-PROT
D525 RD2.4M
D527 RD5.1M SUB-5V-PROT
D529 RD3.3M LEVEL-SHIFT
D504 RD5.1M AUDIO-PROT
D515 RD5.1M AUDIO-PROT
D516 RD13M Y-PROT
RGB VIDEO
V.SYNC
H.SYNC
S.ON.G
VIDEO/YC
CODE3
GND
12V
-12V
5V
-5V
(+5V)
(+12V)
SW101
TP108
TP109
TP110
TP111
TP112
TP113
TP107


8
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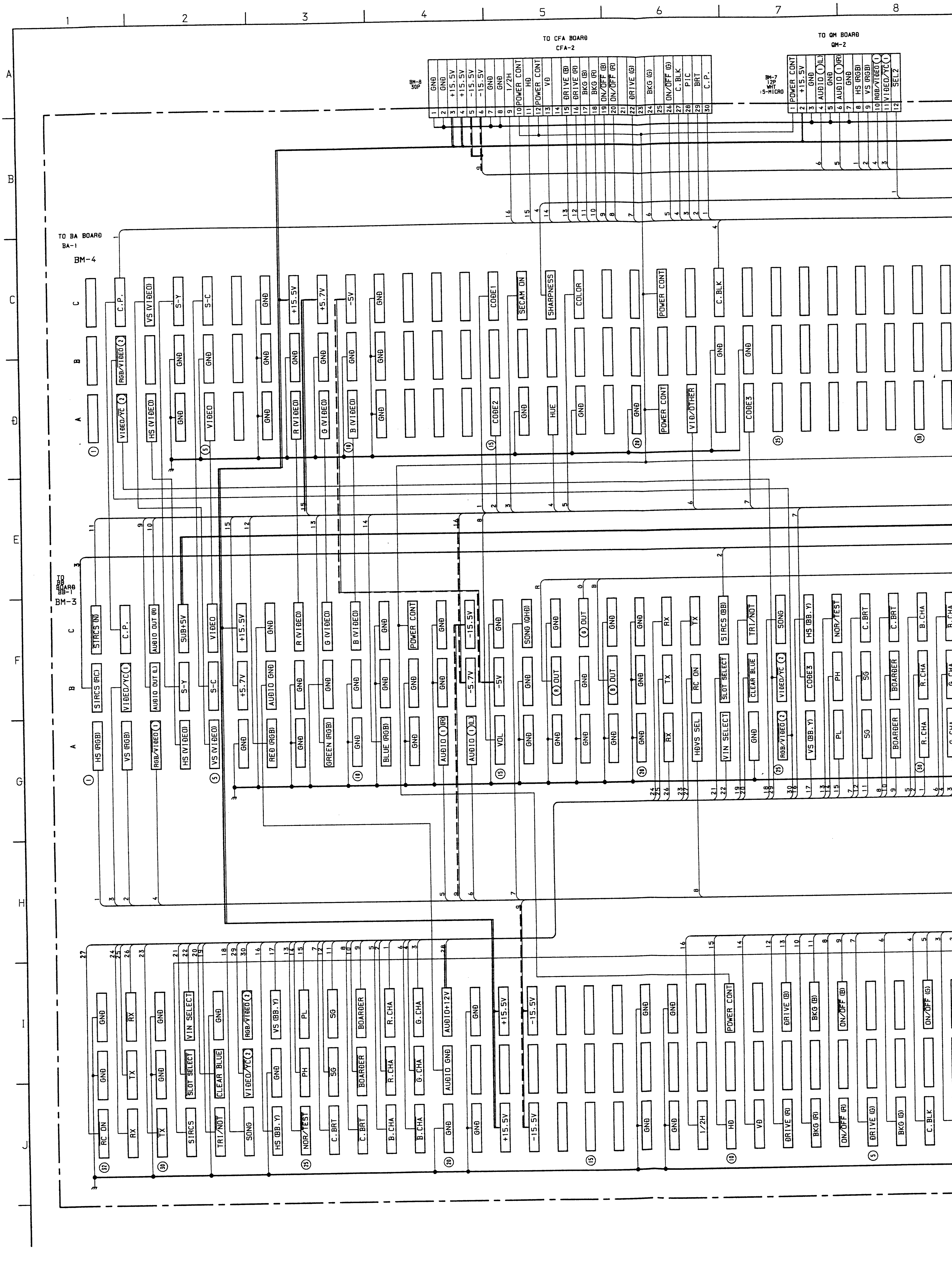
14
15
16
Q451 2SC2712 SIRCS-SW
Q450 2SC2712 SIRCS-SW
Q457 2SA1162 SIRCS-SW
Q453 DTC144EK SIRCS-SW
Q452 2SC2712 SIRCS-SW
Q454 DTC144EK SIRCS-SW
Q456 2SC2712 SIRCS-SW
D450 1S2837 SIRCS-OR
D401 V06C +12V-PROT
D402 V06C -12V.PROT
IC402 LM7812CT +12V-REG
IC403 LM7912CT -12V.REG
Q402 2SB734 -5V.REG
Q656 DTC144EK MODE-SW
IC413 BX-6474 TEST-SIG-GEN
IC414 BX-6473 R-SIG-SW
IC415 BX-6473 B-SIG-SW
IC416 BX-6473 B-SIG-SW
IC418 BX-6475 R-AMP
IC419 BX-6475 G-AMP
IC420 BX-6475 B-AMP
Q654 2SC3545 R-BUFF
Q650 2SK160 R-CLAMP
Q651 2SC3545 R-BUFF
Q653 2SC3545 R-BUFF
Q652 2SA1462 R-BUFF
IC410 μPC4558G2 SIG.CLAMP
Q700 2SK160 G-CLAMP
Q701 2SC3545 G-BUFF
Q702 2SC3545 G-BUFF
Q703 2SA1462 G-BUFF
Q704 FMW-8 CB-SW
Q705 2SC3545 CB-SW
Q706 2SA1462 CB-SW
Q707 FMW-8 CB-SW
Q708 2SA1462 G-BUFF
Q709 2SC3545 CB-SW
IC411 μPC4558G2 SIG.CLAMP
Q750 2SK160 B-CLAMP
Q751 2SC3545 B-BUFF
Q752 2SA1462 B-BUFF
Q753 2SC2712 B-BUFF
Q754 2SC2712 B-BUFF
Q755 2SC3545 B-BUFF
Q756 DTC144EK B-BUFF
Q539 DTC144EK MODE-SW
D652 1S2837 MODE-OR
D653 1S2837 MODE-OR
RED TP101
GREEN TP102
BLUE TP103
Q531 DTC144EK MODE-SW
Q530 DTC144EK MODE-SW
Q517 2SA1462 C-BUFF
D528 1S2837 MODE-SW
IC424 μPC39362-T1 MODE-ENCODER
D451 1S2837 AUDIO-PROT
IC412 μPC1406HA AUDIO-ATT
Q541 DTC144EK MODE-SW
Q542 DTC144EK MODE-SW
Q543 DTC144EK MODE-SW
Q544 DTC144EK MODE-SW
Q545 2SA1162 MODE-SW
Q547 2SA1162 MODE-SW
D452 RD2.4M LEVEL-SHIFT
Q553 2SC2712 AUDIO-BUFF
D530 1S2837 AUDIO-MUTE
Q518 2SC2712 AUDIO-BUFF
Q519 2SC2712 AUDIO-BUFF
D506 RD5.1M POWER-CONT
Q403 DTC144EK POWER-CONT
Q404 2SC2712 POWER-CONT
Q405 DTC144EK POWER-CONT
IC408 HD14053BFP MODE-SW
IC409 HD14053BFP MODE-SW
IC417 BX-7913 G-SYNC-SEP
D634 1S2837 MODE-OR
BB
(SIGNAL SELECT R.G.B PRE AMP)
B-SS1SS7

NOTE) H.SYNC (....) → H.S. (....)
V.SYNC (....) → V.S. (....)

VIDEO/YC (IF.BB) → VIDEO/YC ①
VIDEO/YC (BB.Y) → VIDEO/YC ②
RGB/VIDEO (IF.BB) → RGB/VIDEO ①
RGB/VIDEO (BB.Y) → RGB/VIDEO ②

1
2
3
4
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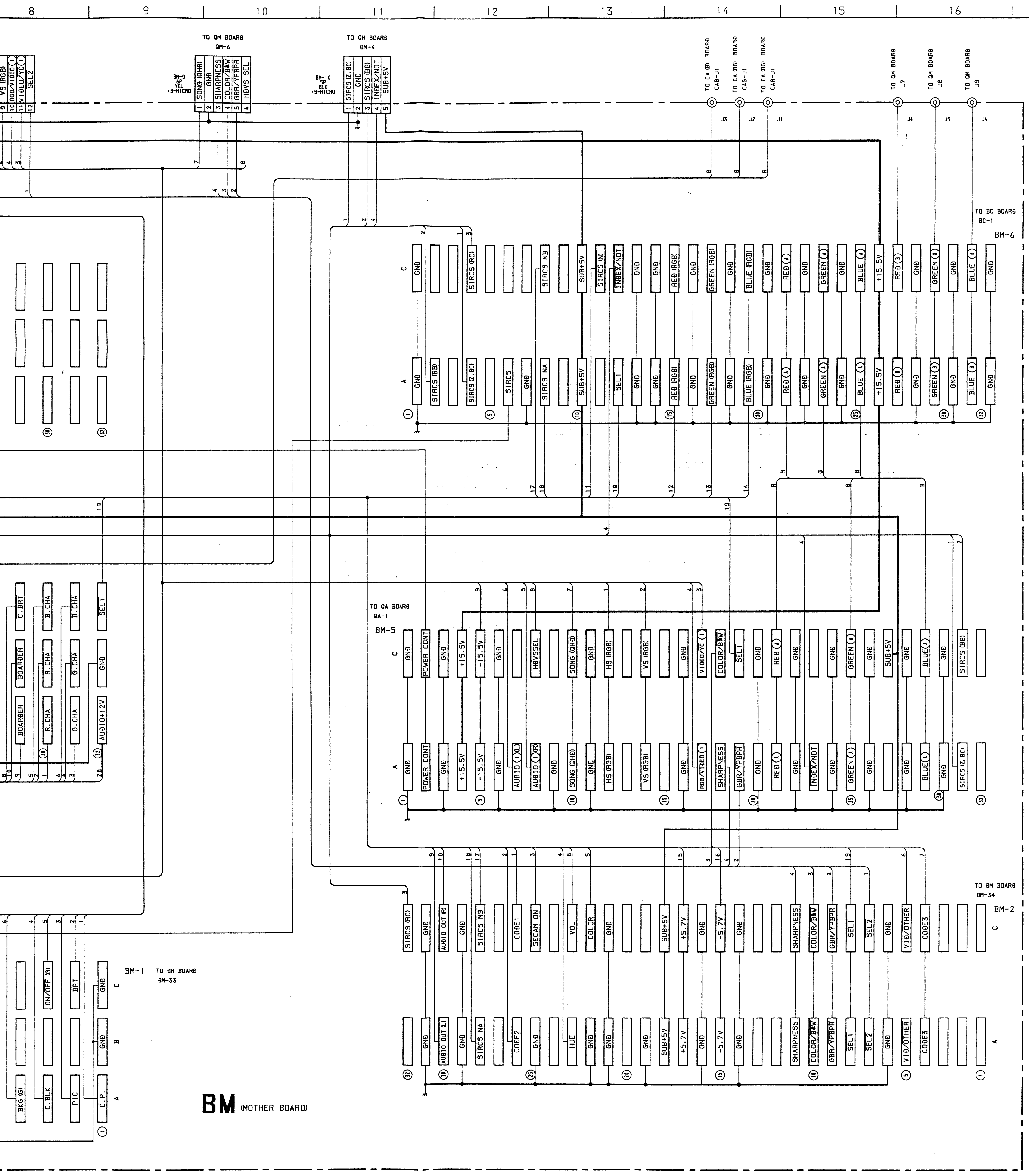
7
8
A
B
C
D
E
F
G
H
I
J
TO CFA BOARD
CFA-2
BM-8
30P
GND
GND
+15.5V
+15.5V
-15.5V
-15.5V
GND
GND
1/2H
POWER CONT
HD
POWER CONT
VD
DRIVE (B)
DRIVE (R)
BKG (B)
BKG (R)
ON/OFF (B)
ON/OFF (R)
DRIVE (G)
BKG (G)
ON/OFF (G)
C.BLK
PIC
BRT
C.P.
TO QM BOARD
QM-2
BM-7
12P
WHT
:S-MICRO
POWER CONT
+15.5V
GND
AUDIO (1)(L)
GND
AUDIO (1)(R)
GND
HS (RGB)
VS (RGB)
RGB/VIDEO (1)
VIDEO/YC (1)
SEL 2
TO BA BOARD
BA-1
BM-4
C.P.
VS (VIDEO)
S-Y
S-C
GND
+15.5V
+5.7V
-5V
CODE1
SECAM ON
SHARPNESS
COLOR
POWER CONT
C.BLK
RGB/VIDEO (2)
VIDEO/YC (2)
HS (VIDEO)
VIDEO
R (VIDEO)
G (VIDEO)
B (VIDEO)
CODE2
HUE
VID/OTHER
CODE3
TO BB BOARD
BB-1
BM-3
SIRCS (N)
SIRCS (RC)
HS (RGB)
C.P.
VIDEO/YC (1)
VS (RGB)
AUDIO OUT (R)
AUDIO OUT (L)
RGB/VIDEO (1)
SUB+5V
S-Y
HS (VIDEO)
VIDEO
S-C
VS (VIDEO)
+15.5V
+5.7V
AUDIO GND
RED (RGB)
GREEN (RGB)
BLUE (RGB)
POWER CONT
AUDIO (1)(R)
-15.5V
-5.7V
AUDIO (1)(L)
-5V
VOL
SONG (GHD)
(R) OUT
(G) OUT
(B) OUT
RX
TX
RC ON
HDVS SEL
SIRCS (BB)
SLOT SELECT
VIN SELECT
TRI/NOT
CLEAR BLUE
SONG
HS (BB.Y)
VS (BB.Y)
CODE3
NOR/TEST
PH
PL
C.BRT
SG
BOARDER
B.CHA
R.CHA
G.CHA
RC ON
RX
TX
SIRCS
SLOT SELECT
VIN SELECT
CLEAR BLUE
TRI/NOT
RGB/VIDEO (2)
VIDEO/YC (2)
SONG
HS (BB.Y)
VS (BB.Y)
NOR/TEST
PH
PL
SG
C.BRT
BOARDER
R.CHA
B.CHA
G.CHA
AUDIO+12V
AUDIO GND
GND
+15.5V
-15.5V
POWER CONT
1/2H
HD
VD
DRIVE (B)
DRIVE (R)
BKG (B)
BKG (R)
ON/OFF (B)
ON/OFF (R)
DRIVE (G)
BKG (G)
ON/OFF (G)
C.BLK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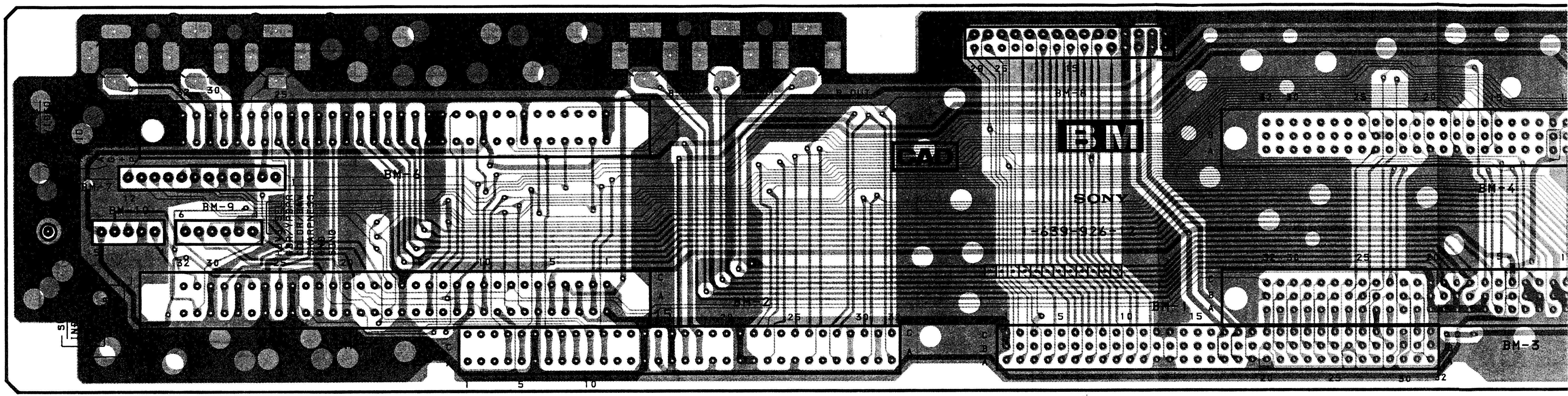
16
TO QM BOARD QM-6
BM-9 6P YEL :S-MICRO
SONG (QHD)
GND
SHARPNESS
COLOR/B&W
GBR/YPBPR
HDVS SEL
TO QM BOARD QM-4
BM-10 5P BLK :S-MICRO
SIRCS (Z.BC)
GND
SIRCS (BB)
INDEX/NOT
SUB+5V
VS (RGB)
RGB/VIDEO
VIDEO/YC
SEL2
TO CA (B) BOARD CAB-J1
TO CA (G) BOARD CAG-J1
TO CA (R) BOARD CAR-J1
TO QM BOARD J7
TO QM BOARD J8
TO QM BOARD J9
J3
J2
J1
J4
J5
J6
TO BC BOARD BC-1
BM-6
TO QA BOARD QA-1
BM-5
TO QM BOARD QM-34
BM-2
BM-1
TO QM BOARD QM-33
C.BRT
B.CHA
SEL1
BOARDER
R.CHA
G.CHA
AUDIO+12V
ON/OFF (G)
BRT
BKG (G)
C.BLK
PIC
C.P.
POWER CONT
+15.5V
-15.5V
HDVSSEL
HS (RGB)
RED (A)
GREEN (A)
BLUE (A)
SIRCS NB
SIRCS NA
SIRCS (RC)
AUDIO OUT (R)
AUDIO OUT (L)
CODE1
CODE2
CODE3
SECAM ON
VOL
HUE
COLOR
+5.7V
-5.7V
VID/OTHER
SIRCS (N)
RED (RGB)
GREEN (RGB)
BLUE (RGB)
RED (B)
GREEN (B)
BLUE (B)
+15.5V
AUDIO (1)(L)
AUDIO (1)(R)
A
B
C
GND
BM (MOTHER BOARD)

B-SS1557<U/C>-BM.

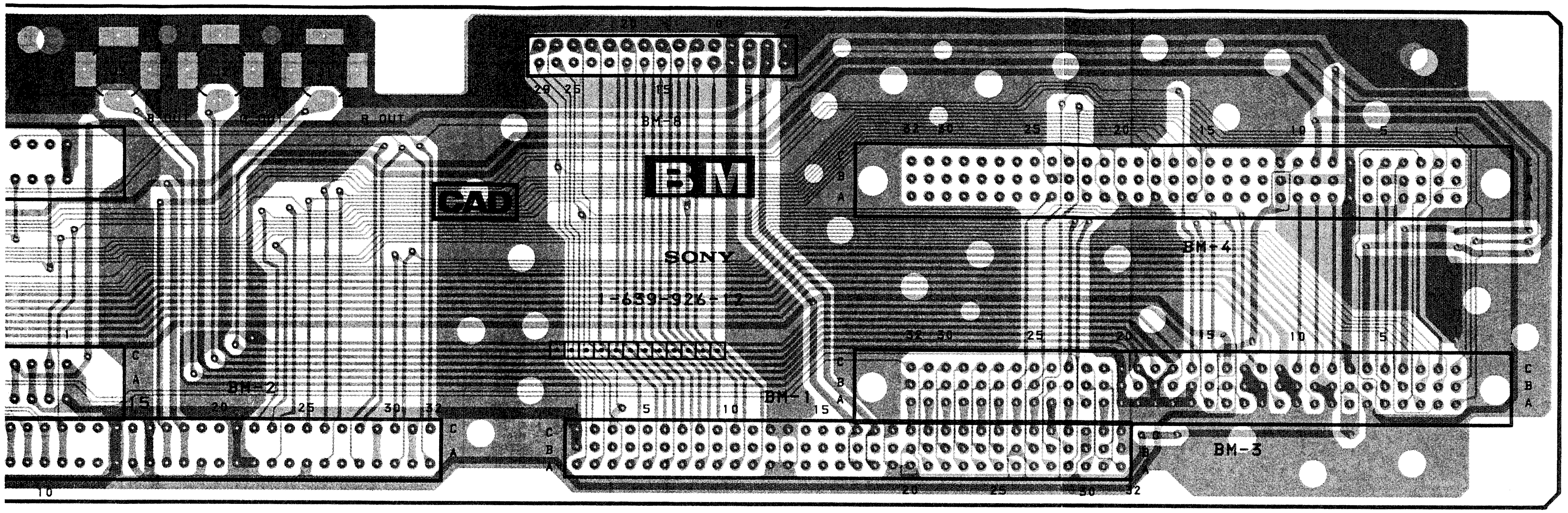
BM [MOTHER BOARD]

– BM BOARD –


BM-7
BM-10
BM-9
BM-6
BM-2
BM-8
BM
CAD
SONY
1-659-926-
BM-1
BM-4
BM-3
1
5
10
15
20
25
30
32

Note :

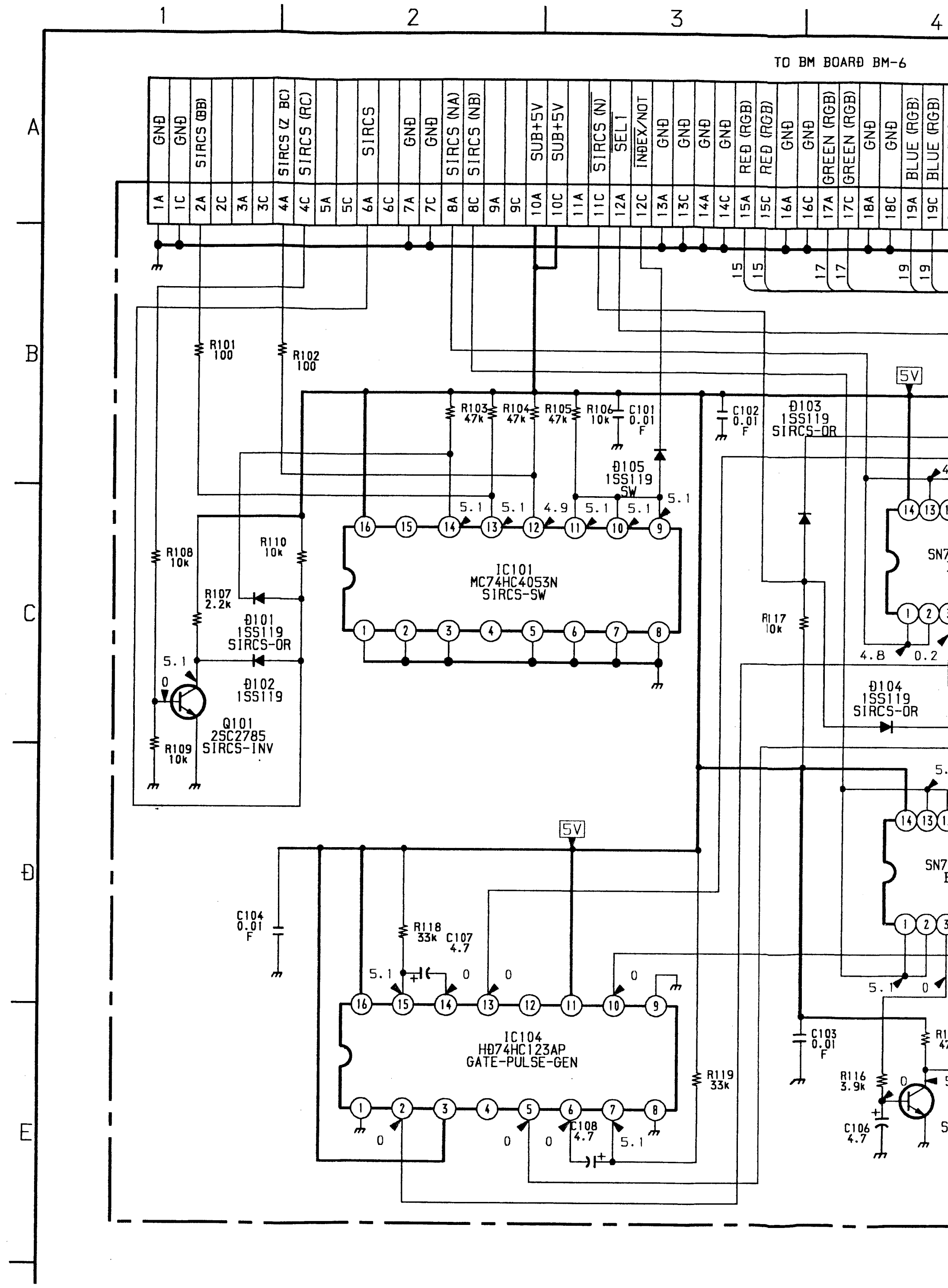
- ▨ : Pat
- ▨ : Pat

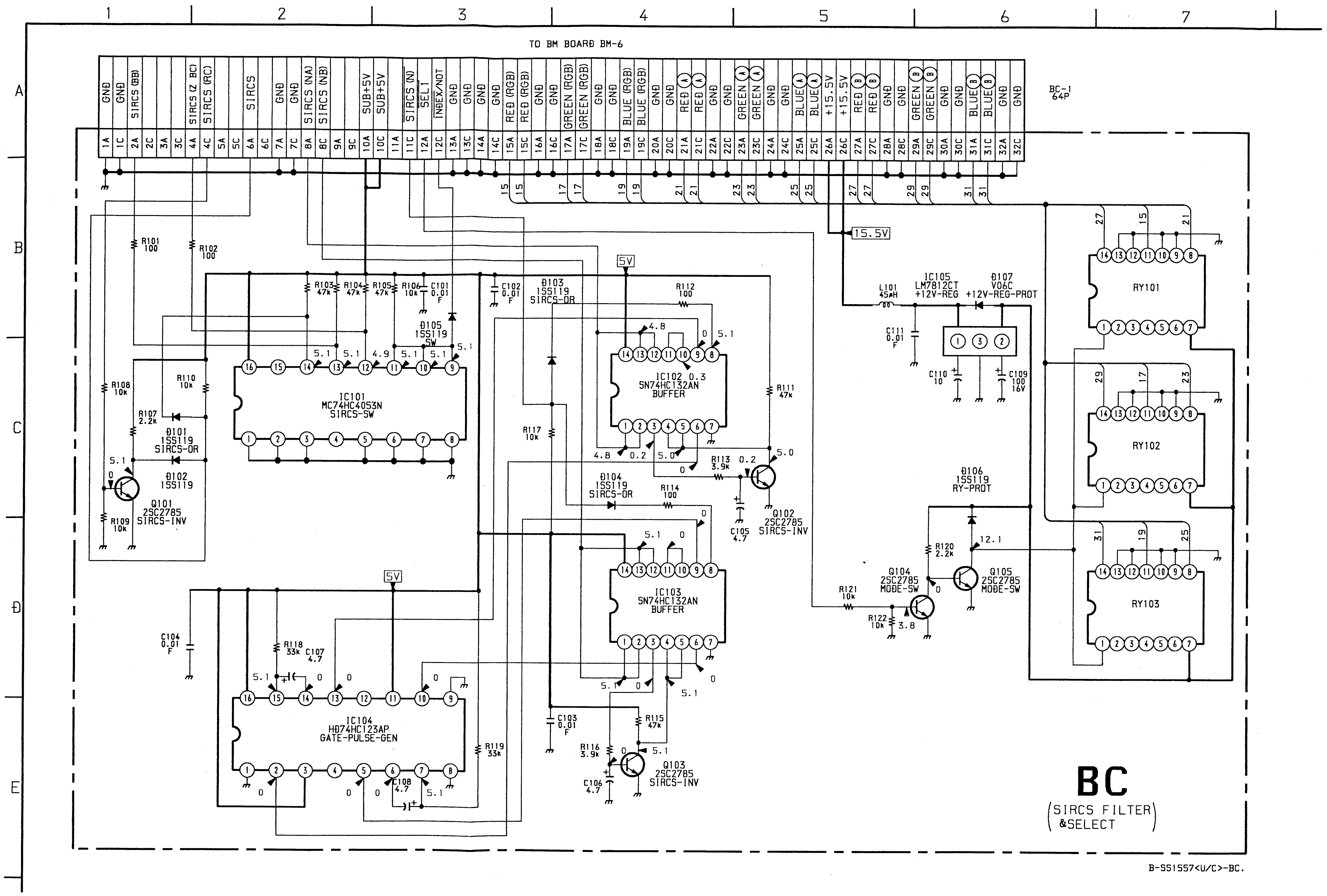

BM
CAD
SONY
1-659-926-12
BM-1
BM-2
BM-3
BM-4
BM-8
B OUT
C
B
A
5
10
15
20
25
29
30
32

Note :

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

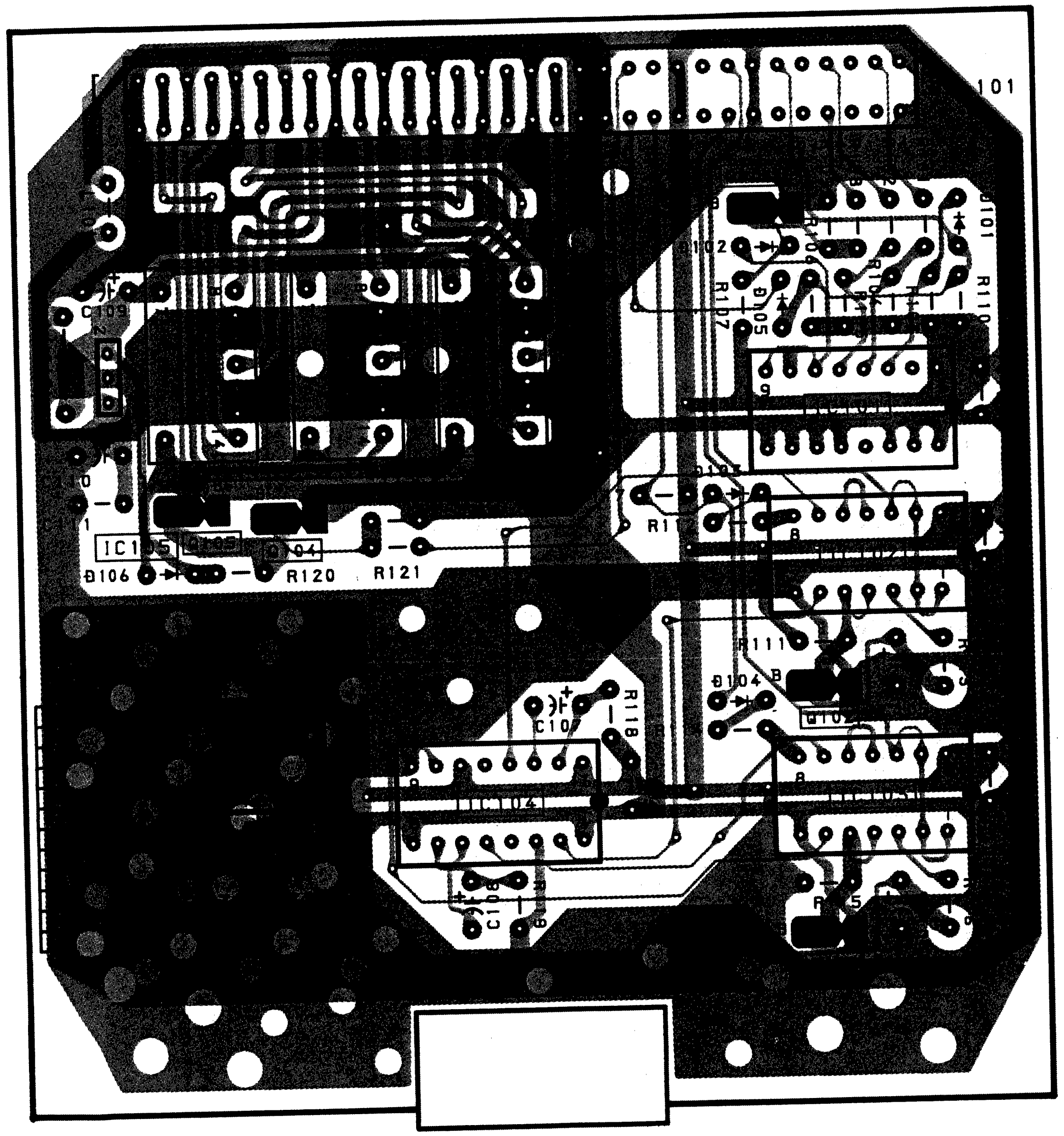
Schematic diagrams
BC board ➡


1
2
3
4
A
B
C
D
E
TO BM BOARD BM-6
GND
GND
SIRCS (BB)
SIRCS (Z BC)
SIRCS (RC)
SIRCS
GND
GND
SIRCS (NA)
SIRCS (NB)
SUB+5V
SUB+5V
SIRCS (N)
SEL1
INDEX/NOT
GND
GND
GND
GND
RED (RGB)
RED (RGB)
GND
GND
GREEN (RGB)
GREEN (RGB)
GND
GND
BLUE (RGB)
BLUE (RGB)
1A
1C
2A
2C
3A
3C
4A
4C
5A
5C
6A
6C
7A
7C
8A
8C
9A
9C
10A
10C
11A
11C
12A
12C
13A
13C
14A
14C
15A
15C
16A
16C
17A
17C
18A
18C
19A
19C
15
15
17
17
19
19
R101
100
R102
100
5V
R103
47k
R104
47k
R105
47k
R106
10k
C101
0.01
F
C102
0.01
F
D103
1SS119
SIRCS-OR
D105
1SS119
SW
5.1
5.1
5.1
4.9
5.1
5.1
IC101
MC74HC4053N
SIRCS-SW
R108
10k
R110
10k
R107
2.2k
D101
1SS119
SIRCS-OR
5.1
0
D102
1SS119
Q101
2SC2785
SIRCS-INV
R109
10k
R117
10k
4.8
0.2
D104
1SS119
SIRCS-OR
SN7
5.
SN7
5V
C104
0.01
F
R118
33k
C107
4.7
5.1
0
0
0
IC104
HD74HC123AP
GATE-PULSE-GEN
R119
33k
0
0
0
C108
4.7
5.1
C103
0.01
F
R116
3.9k
C106
4.7
5.1
0
0


TO BM BOARD BM-6
BC-1 64P
GND
SIRCS (BB)
SIRCS (Z BC)
SIRCS (RC)
SIRCS
SIRCS (NA)
SIRCS (NB)
SUB+5V
SIRCS (N)
SEL1
INDEX/NOT
RED (RGB)
GREEN (RGB)
BLUE (RGB)
RED (A)
GREEN (A)
BLUE (A)
+15.5V
RED (B)
GREEN (B)
BLUE (B)
15.5V
5V
IC101 MC74HC4053N SIRCS-SW
IC102 SN74HC132AN BUFFER
IC103 SN74HC132AN BUFFER
IC104 HD74HC123AP GATE-PULSE-GEN
IC105 LM7812CT +12V-REG
D107 V06C +12V-REG-PROT
L101 45µH
Q101 2SC2785 SIRCS-INV
Q102 2SC2785 SIRCS-INV
Q103 2SC2785 SIRCS-INV
Q104 2SC2785 MODE-SW
Q105 2SC2785 MODE-SW
D101 1SS119 SIRCS-OR
D102 1SS119
D103 1SS119 SIRCS-OR
D104 1SS119 SIRCS-OR
D105 1SS119 SW
D106 1SS119 RY-PROT
RY101
RY102
RY103
R101 100
R102 100
R103 47k
R104 47k
R105 47k
R106 10k
R107 2.2k
R108 10k
R109 10k
R110 10k
R111 47k
R112 100
R113 3.9k
R114 100
R115 47k
R116 3.9k
R117 10k
R118 33k
R119 33k
R120 2.2k
R121 10k
R122 10k
C101 0.01 F
C102 0.01 F
C103 0.01 F
C104 0.01 F
C105 4.7
C106 4.7
C107 4.7
C108 4.7
C109 100 16V
C110 10
C111 0.01 F
BC
(SIRCS FILTER &SELECT)
B-SS1557<U/C>-BC.

BC [SIRCS FILTER & SELECT]

– BC BOARD –


101
D101
R110
D102
R107
D105
R111
D104
C107
R118
IC104
IC105
D106
R120
R121
IC105

Note :

- ▨ : Pattern from the side which enables seeing.
- ■ : Pattern of the rear side.

CA(B) [VIDEO OUT (B)]

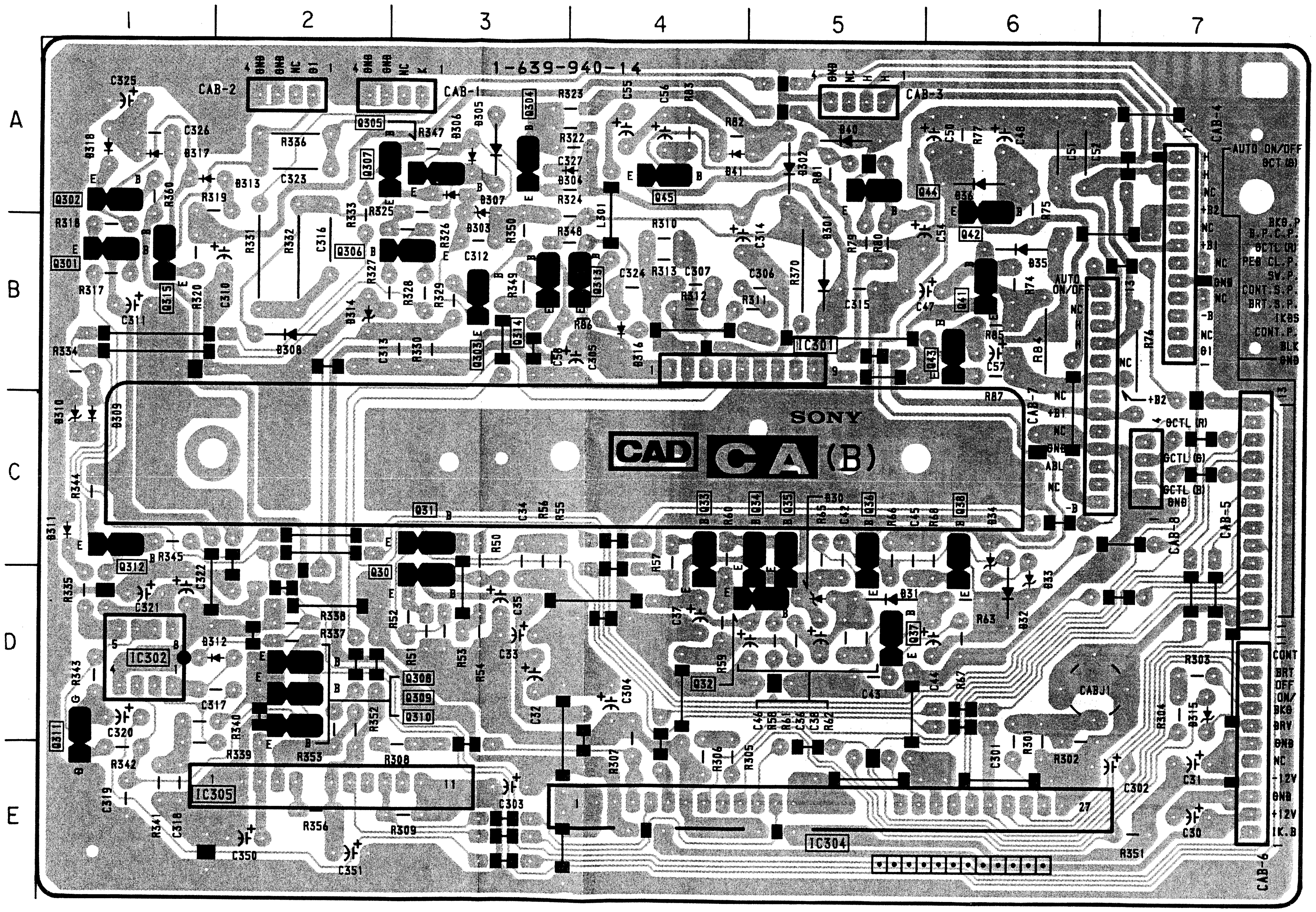
CA(B) BOARD

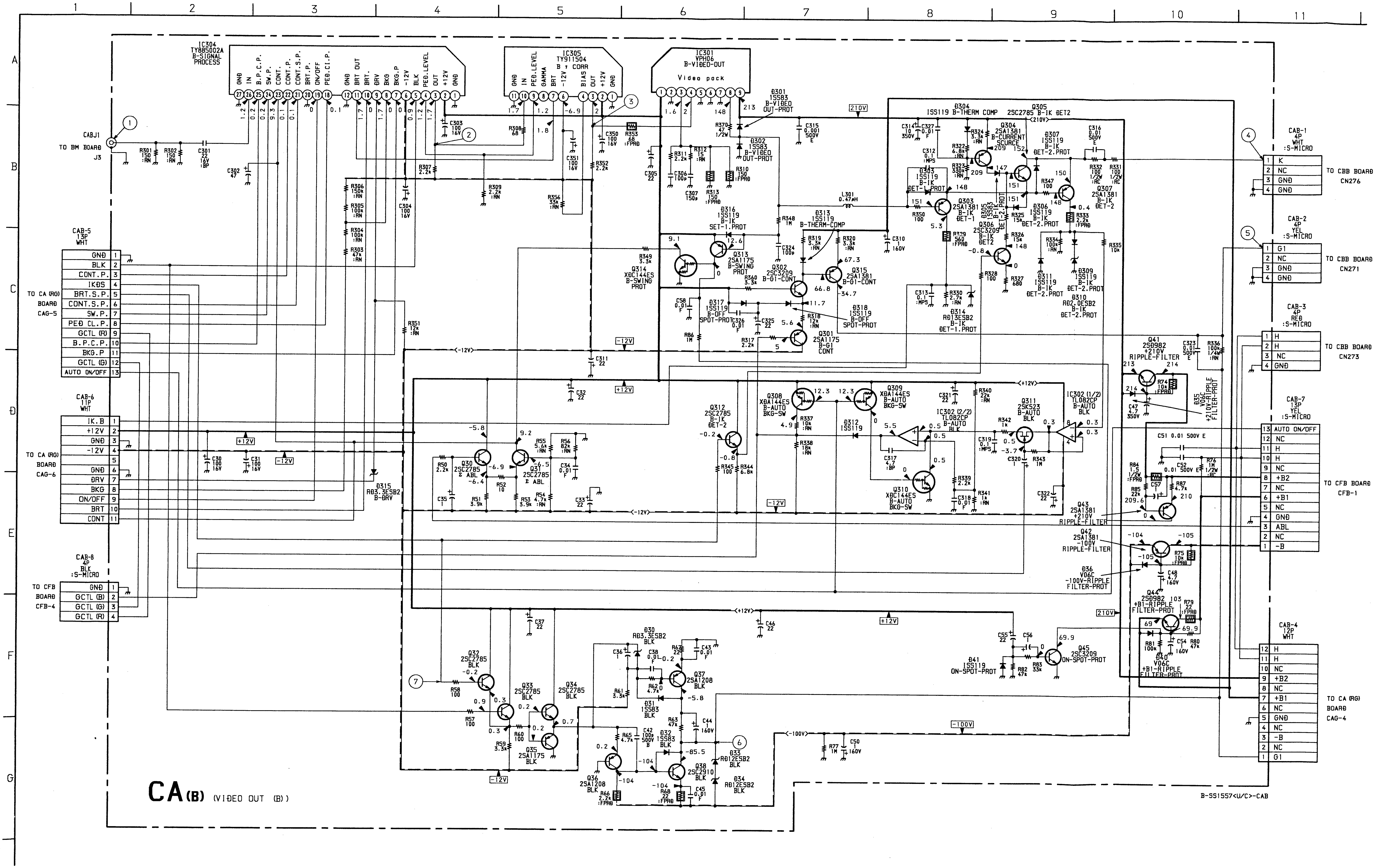
IC	
IC301	B – 5
IC302	D – 1
IC304	E – 5
IC305	E – 2

TRANSISTOR	
Q30	D – 3
Q31	C – 3
Q32	D – 5
Q33	C – 4
Q34	C – 5
Q35	C – 5
Q36	C – 5
Q37	D – 5
Q38	C – 6
Q41	B – 6
Q42	A – 6
Q43	B – 6
Q44	A – 5
Q45	A – 4
Q301	B – 1
Q302	A – 1
Q303	B – 3
Q304	A – 3
Q305	A – 3
Q306	B – 2
Q307	A – 2
Q308	D – 2
Q309	D – 2
Q310	D – 2
Q311	D – 1
Q312	C – 1
Q313	B – 4
Q314	B – 3
Q315	B – 1

DIODE	
D30	D – 5
D31	D – 5
D32	D – 6
D33	D – 6
D34	C – 6
D35	B – 6
D36	A – 6
D40	A – 5
D41	A – 4
D301	B – 5
D302	A – 5
D303	A – 3
D304	A – 3
D305	A – 3
D306	A – 3
D307	A – 3
D309	C – 1
D310	C – 1
D311	C – 1
D312	D – 1
D313	A – 1
D314	B – 2
D315	D – 7
D316	B – 4
D317	A – 1
D318	A – 1

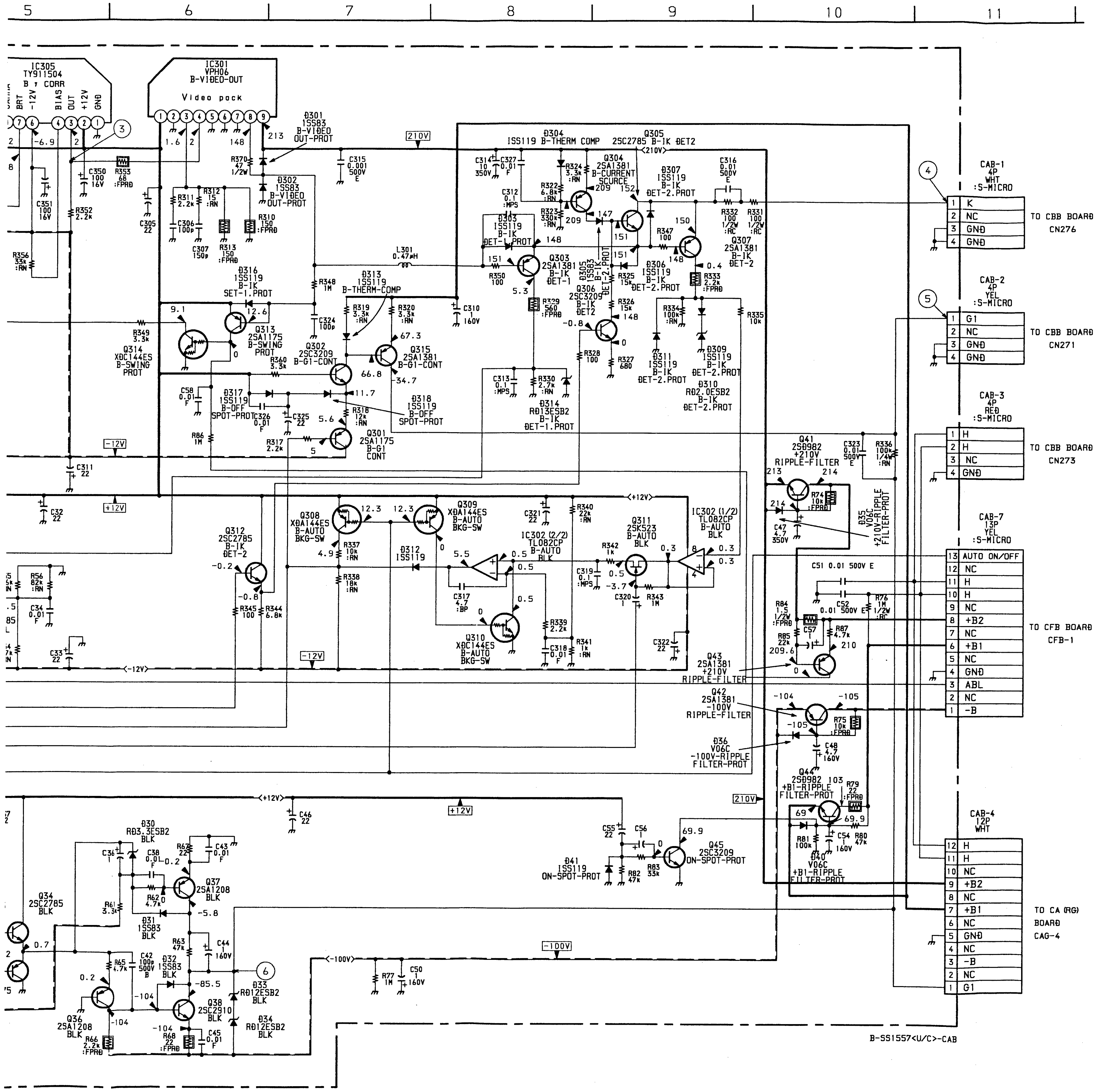
– CA(B) BOARD –


1
2
3
4
5
6
7
A
B
C
D
E
1-639-940-14
CAB-1
CAB-2
CAB-3
CAB-4
CAB-5
CAB-6
CAB-7
CAB-8
CABJ1
SONY
CAD
CA (B)
IC301
IC302
IC304
IC305
Q30
Q31
Q32
Q33
Q34
Q35
Q36
Q37
Q38
Q41
Q42
Q43
Q44
Q45
Q301
Q302
Q303
Q304
Q305
Q306
Q307
Q308
Q309
Q310
Q311
Q312
Q313
Q314
Q315
AUTO ON/OFF
GCT (B)
BKG.P
S.P.C.P.
GCTL (R)
PED CL.P.
SW.P.
CONT.S.P.
BRT.S.P.
IKBS
CONT.P.
BLK
GND
+B2
+B1
NC
-B
ABL
GCTL (R)
GCTL (G)
GCTL (B)
CONT
BRT
OFF
ON/
BKG
BRV
-12V
+12V
IK.B


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
IC304 TY885002A B-SIGNAL PROCESS
IC305 TY911504 B γ CORR
IC301 VPH06 B-VIDEO-OUT Video pack
CABJ1 TO BM BOARD J3
CAB-5 13P WHT
GND
BLK
CONT.P.
IKDS
BRT.S.P.
CONT.S.P.
SW.P.
PED CL.P.
GCTL (R)
B.P.C.P.
BKG.P
GCTL (G)
AUTO ON/OFF
TO CA (RG) BOARD CAG-5
CAB-6 11P WHT
IK.B
+12V
-12V
DRV
BKG
ON/OFF
BRT
CONT
TO CA (RG) BOARD CAG-6
CAB-8 4P BLK :S-MICRO
GCTL (B)
TO CFB BOARD CFB-4
CAB-1 4P WHT :S-MICRO
K
NC
TO CBB BOARD CN276
CAB-2 4P YEL :S-MICRO
G1
TO CBB BOARD CN271
CAB-3 4P RED :S-MICRO
H
TO CBB BOARD CN273
CAB-7 13P YEL :S-MICRO
+B2
+B1
ABL
-B
TO CFB BOARD CFB-1
CAB-4 12P WHT
TO CA (RG) BOARD CAG-4
Q301 2SA1175 B-G1 CONT
Q302 2SC3209 B-G1-CONT
Q303 2SA1381 B-IK DET-1
Q304 2SA1381 B-CURRENT SCURCE
Q305 2SC2785 B-IK DET2
Q306 2SC3209 B-IK DET2
Q307 2SA1381 B-IK DET-2
Q308 XBA144ES B-AUTO BKG-SW
Q309 XBA144ES B-AUTO BKG-SW
Q310 XBC144ES B-AUTO BKG-SW
Q311 2SK523 B-AUTO BLK
Q312 2SC2785 B-IK DET-2
Q313 2SA1175 B-SWING PROT
Q314 XBC144ES B-SWING PROT
Q315 2SA1381 B-G1-CONT
IC302 (1/2) TL082CP B-AUTO BLK
IC302 (2/2) TL082CP B-AUTO BLK
Q30 2SC2785 Σ ABL
Q31 2SC2785 Σ ABL
Q32 2SC2785 BLK
Q33 2SC2785 BLK
Q34 2SC2785 BLK
Q35 2SA1175 BLK
Q36 2SA1208 BLK
Q37 2SA1208 BLK
Q38 2SC2910 BLK
Q41 2SD982 +210V RIPPLE-FILTER
Q42 2SA1381 -100V RIPPLE-FILTER
Q43 2SA1381 +210V RIPPLE-FILTER
Q44 2SD982 +B1-RIPPLE FILTER-PROT
Q45 2SC3209 ON-SPOT-PROT
D35 V06C +210V-RIPPLE FILTER-PROT
D36 V06C -100V-RIPPLE FILTER-PROT
D40 V06C +B1-RIPPLE FILTER-PROT
D41 1SS119 ON-SPOT-PROT
210V
+12V
-12V
-100V
CA(B) (VIDEO OUT (B))
B-SS1557<U/C>-CAB

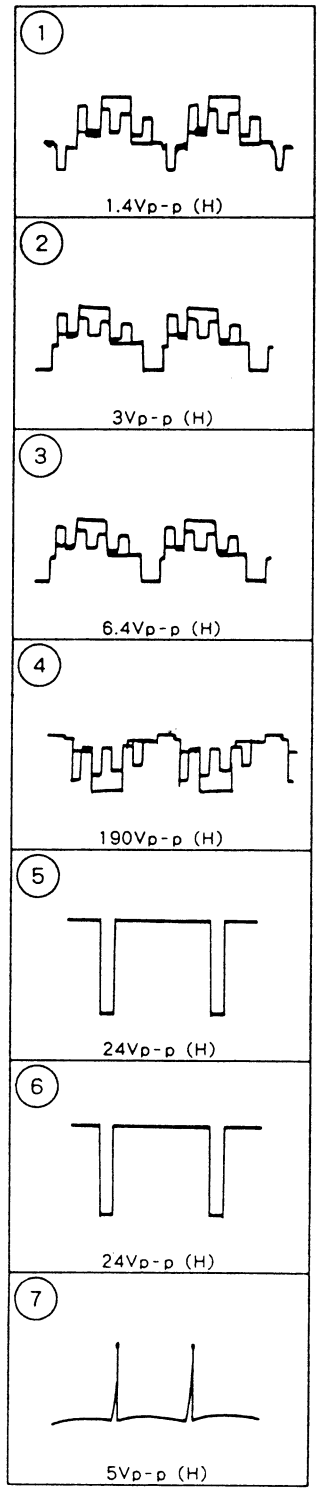
Schematic c

← CA (B)



5
6
7
8
9
10
11
IC305 TY911504 B γ CORR
IC301 VPH06 B-VIDEO-OUT
Video pack
D301 1SS83 B-VIDEO OUT-PROT
D302 1SS83 B-VIDEO OUT-PROT
210V
D304 1SS119 B-THERM COMP
Q305 2SC2785 B-IK DET2
Q304 2SA1381 B-CURRENT SCURCE
D307 1SS119 B-IK DET-2.PROT
Q307 2SA1381 B-IK DET-2
D303 1SS119 B-IK DET-1.PROT
Q303 2SA1381 B-IK DET-1
D305 1SS83 DET-1.PROT
D306 1SS119 B-IK DET-2.PROT
Q306 2SC3209 B-IK DET2
D311 1SS119 B-IK DET-2.PROT
D309 1SS119 B-IK DET-2.PROT
D310 RD2.0ESB2 B-IK DET-2.PROT
D314 RD13ESB2 B-IK DET-1.PROT
L301 0.47mH
D313 1SS119 B-THERM-COMP
D316 1SS119 B-IK SET-1.PROT
Q313 2SA1175 B-SWING PROT
Q314 XDC144ES B-SWING PROT
Q302 2SC3209 B-G1-CONT
Q315 2SA1381 B-G1-CONT
D317 1SS119 B-OFF SPOT-PROT
D318 1SS119 B-OFF SPOT-PROT
Q301 2SA1175 B-G1 CONT
-12V
+12V
Q312 2SC2785 B-IK DET-2
Q308 XDA144ES B-AUTO BKG-SW
Q309 XDA144ES B-AUTO BKG-SW
D312 1SS119
IC302 (2/2) TL082CP B-AUTO BLK
Q311 2SK523 B-AUTO BLK
IC302 (1/2) TL082CP B-AUTO BLK
Q310 XDC144ES B-AUTO BKG-SW
Q41 2SD982 +210V RIPPLE-FILTER
D35 V06C +210V-RIPPLE FILTER-PROT
C51 0.01 500V E
Q43 2SA1381 +210V RIPPLE-FILTER
Q42 2SA1381 -100V RIPPLE-FILTER
D36 V06C -100V-RIPPLE FILTER-PROT
Q44 2SD982 +B1-RIPPLE FILTER-PROT
D40 V06C +B1-RIPPLE FILTER-PROT
Q45 2SC3209 ON-SPOT-PROT
D41 1SS119 ON-SPOT-PROT
-100V
D30 RD3.3ESB2 BLK
Q37 2SA1208 BLK
Q34 2SC2785 BLK
D31 1SS83 BLK
D32 1SS83 BLK
Q36 2SA1208 BLK
Q38 2SC2910 BLK
D33 RD12ESB2 BLK
D34 RD12ESB2 BLK
CAB-1 4P WHT :S-MICRO
1 K
2 NC
3 GND
4 GND
TO CBB BOARD CN276
CAB-2 4P YEL :S-MICRO
1 G1
2 NC
3 GND
4 GND
TO CBB BOARD CN271
CAB-3 4P RED :S-MICRO
1 H
2 H
3 NC
4 GND
TO CBB BOARD CN273
CAB-7 13P YEL :S-MICRO
13 AUTO ON/OFF
12 NC
11 H
10 H
9 NC
8 +B2
7 NC
6 +B1
5 NC
4 GND
3 ABL
2 NC
1 -B
TO CFB BOARD CFB-1
CAB-4 12P WHT
12 H
11 H
10 NC
9 +B2
8 NC
7 +B1
6 NC
5 GND
4 NC
3 -B
2 NC
1 G1
TO CA (RG) BOARD CAG-4
B-SS1557<U/C>-CAB

• CA(B) BOARD WAVEFORMS



Schematic diagrams

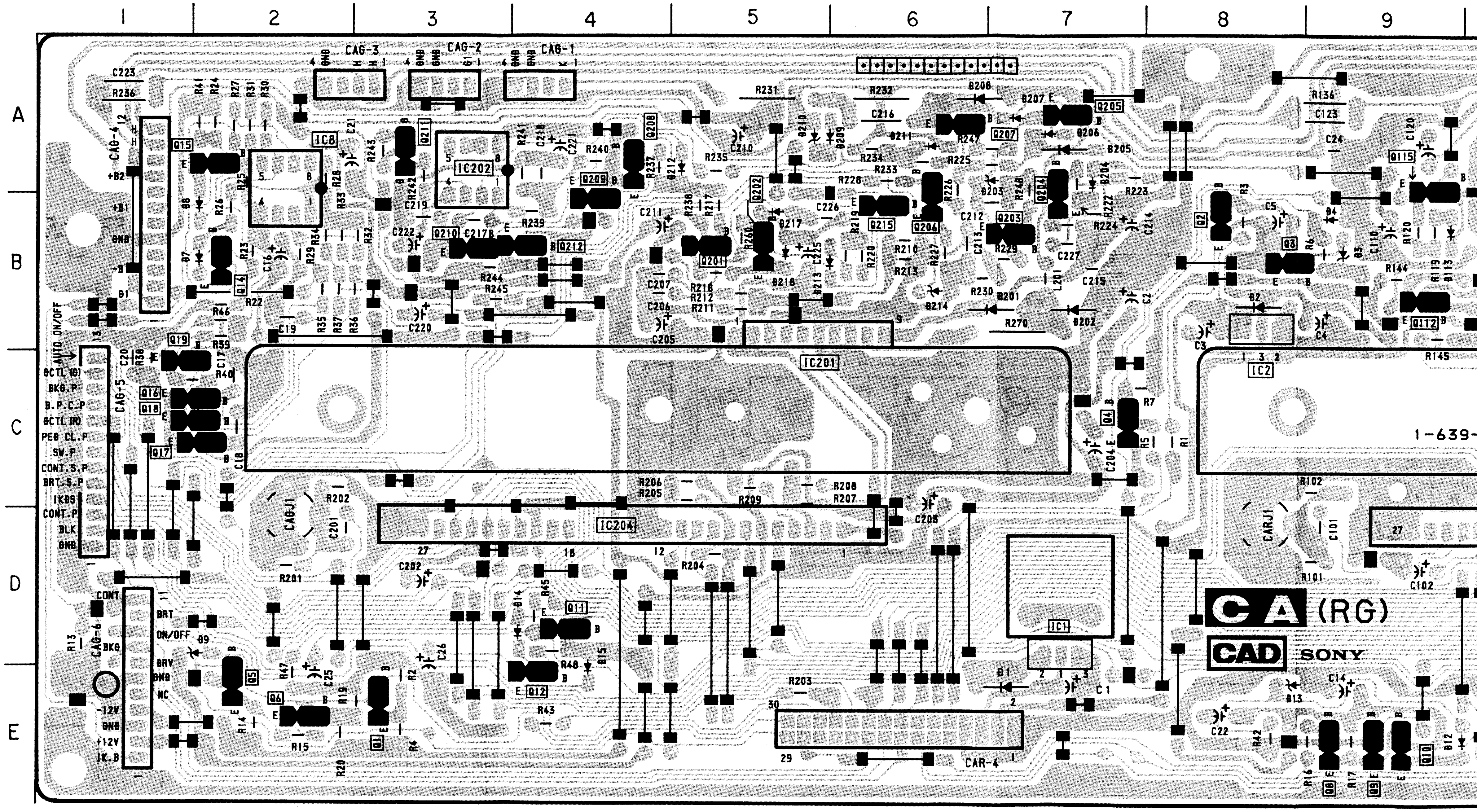
← CA (B) board

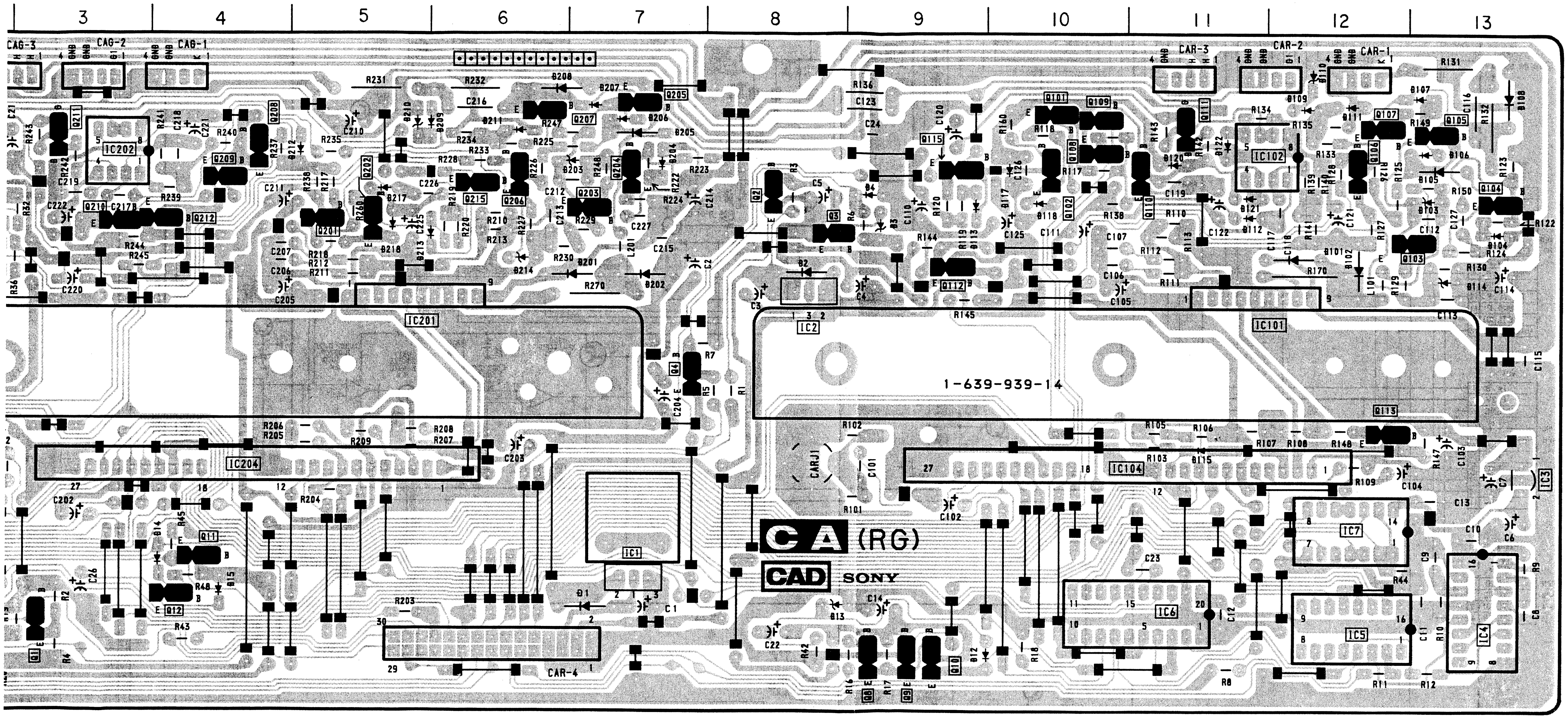
CA(RG) [VIDEO OUT R, G]

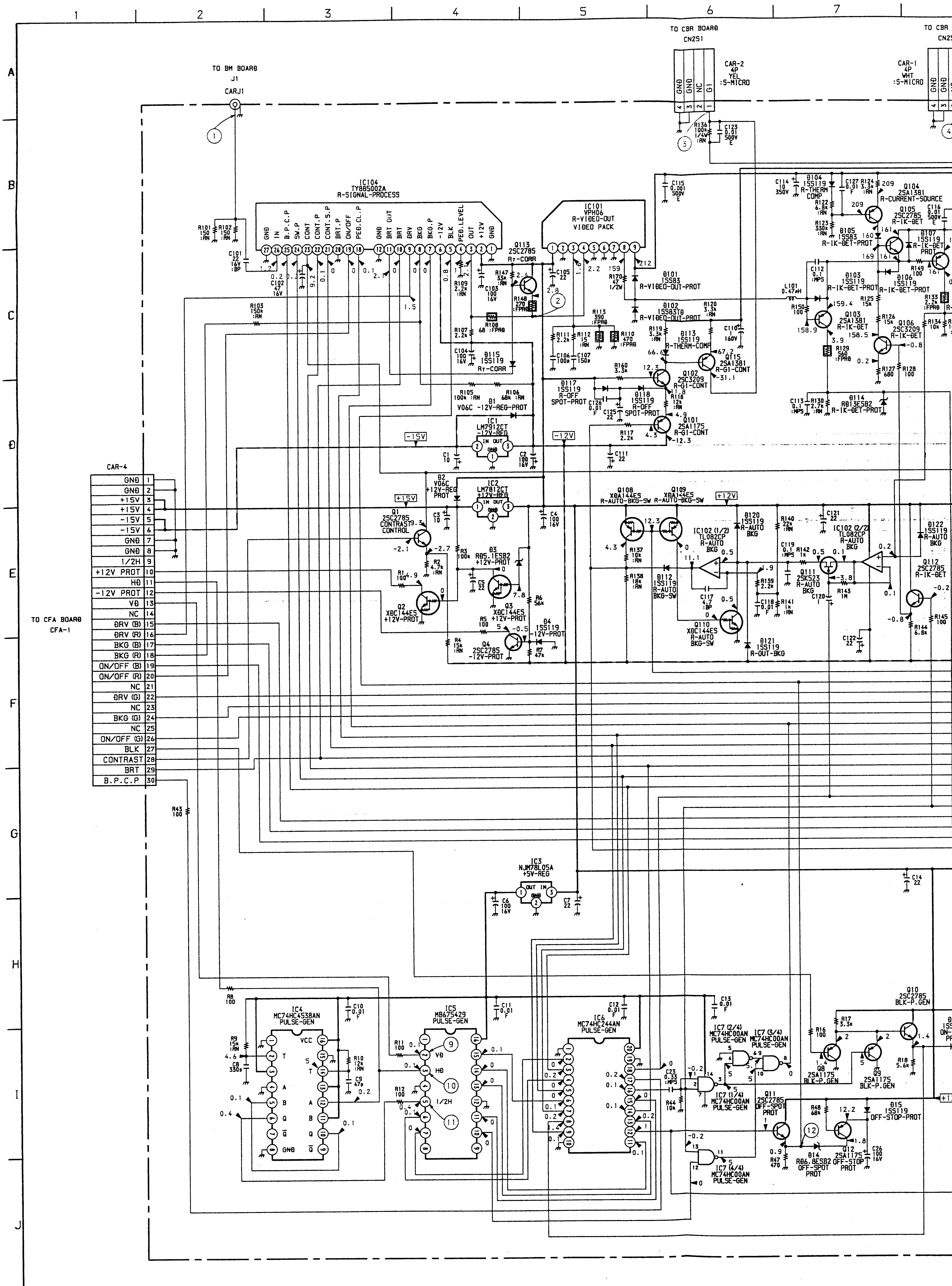
CA(RG) BOARD

IC	
IC1	D – 7
IC2	B – 8
IC3	D – 13
IC4	E – 13
IC5	E – 12
IC6	E – 11
IC7	D – 12
IC8	A – 2
IC101	B – 11
IC102	A – 11
IC104	D – 10
IC201	B – 5
IC202	A – 3
IC204	D – 4
TRANSISTOR	
Q1	E – 3
Q2	B – 8
Q3	B – 8
Q4	C – 7
Q5	E – 2
Q8	E – 9
Q9	E – 9
Q10	E – 9
Q11	D – 4
Q12	E – 4
Q14	B – 2
Q15	A – 2
Q16	C – 1
Q17	C – 1
Q18	C – 1
Q19	C – 1
Q101	A – 10
Q102	B – 10
Q103	B – 13
Q104	B – 13
Q105	A – 13
Q106	A – 12
Q107	A – 12
Q108	A – 10
Q109	A – 10
Q110	B – 11
Q111	A – 11
Q112	B – 9
Q113	C – 12
Q115	A – 9
Q201	B – 5
Q202	B – 5
Q203	B – 7
Q204	A – 7
Q205	A – 7
Q206	B – 6
Q207	A – 6
Q208	A – 4
Q209	A – 4
Q210	B – 3
Q211	A – 3
Q212	B – 4
Q215	B – 6
DIODE	
D1	E – 7
D2	B – 8
D3	B – 9
D4	B – 9
D7	B – 2
D8	B – 2
D9	D – 2
D12	E – 9
D13	E – 8
D14	D – 4
D15	E – 4
D101	B – 12
D102	B – 12
D103	B – 13
D104	B – 13
D105	A – 13
D106	A – 13
D107	A – 13
D109	A – 12
D110	A – 12
D111	A – 12
D112	B – 11
D113	B – 9
D114	B – 13
D115	D – 14
D117	A – 10
D118	B – 10
D120	A – 11
D121	B – 11
D122	A – 11
D201	B – 7
D202	B – 7
D203	A – 6
D204	A – 7
D205	A – 7
D206	A – 7
D207	A – 7
D209	A – 5
D210	A – 5
D211	A – 6
D212	A – 5
D213	B – 5
D214	B – 6
D217	B – 5
D218	B – 5

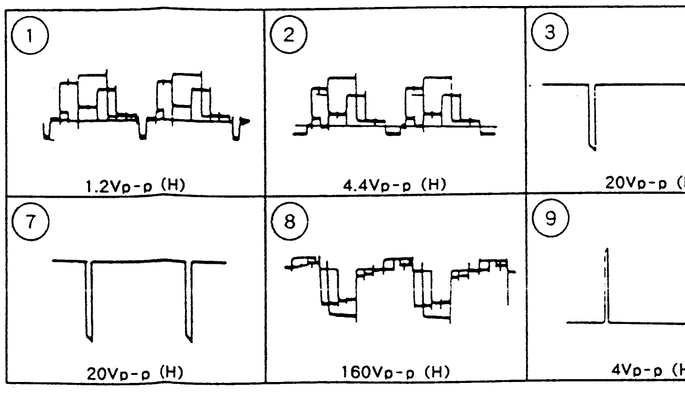
– CA(RG) BOARD –

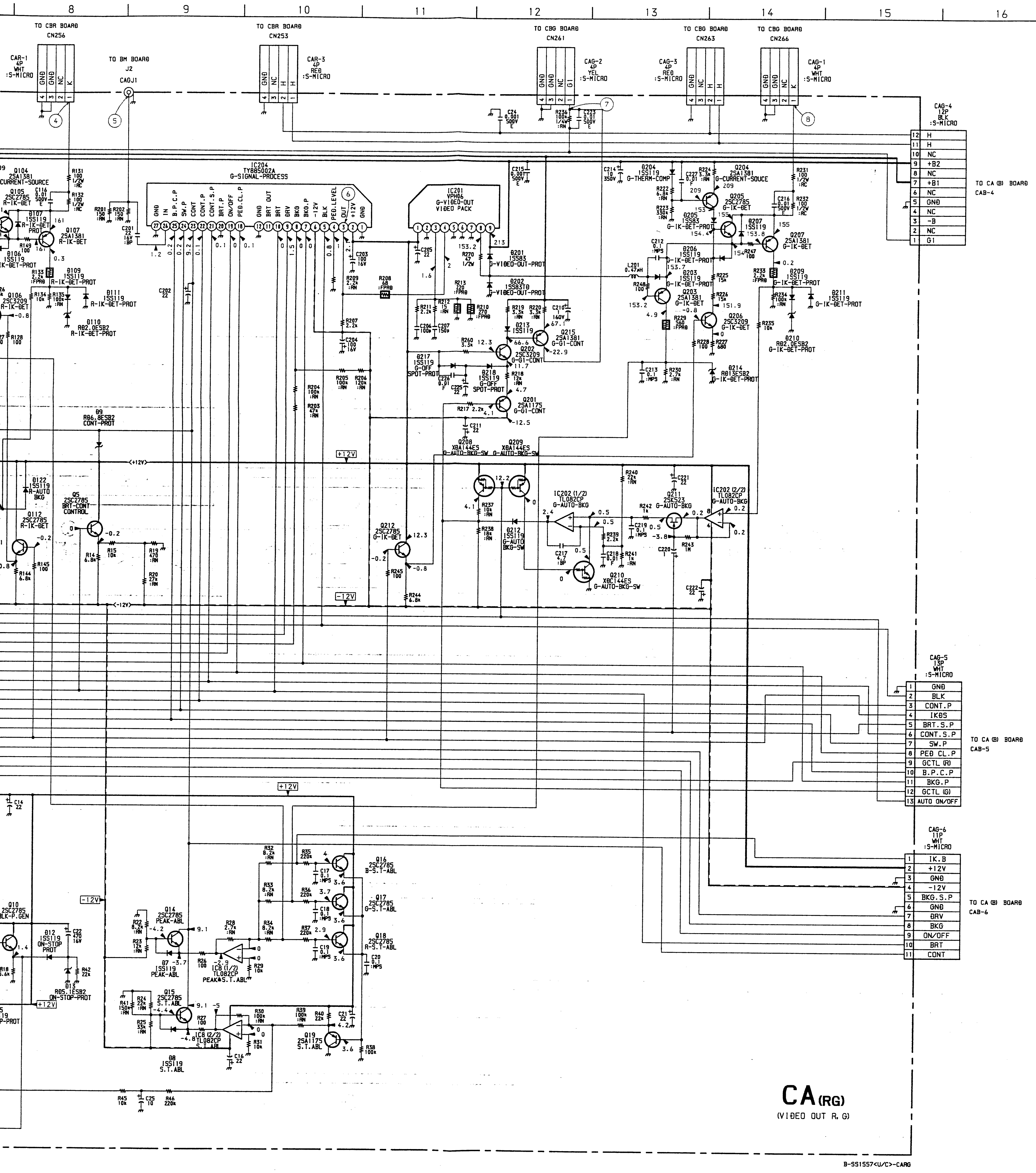

1
2
3
4
5
6
7
8
9
A
B
C
D
E
CAG-3
CAG-2
CAG-1
CAG-4
CAG-5
CAG-6
CAR-4
IC8
IC202
IC201
IC204
IC1
IC2
CABJ1
CARJ1
AUTO ON/OFF
θCTL (B)
BKG.P
B.P.C.P
θCTL (R)
PEG CL.P
SW.P
CONT.S.P
BRT.S.P
IKBS
CONT.P
BLK
GND
+B2
+B1
-B
CONT
BRT
ON/OFF
BKG
DRV
NC
-12V
+12V
IK.B
1-639-
CA (RG)
CAD
SONY

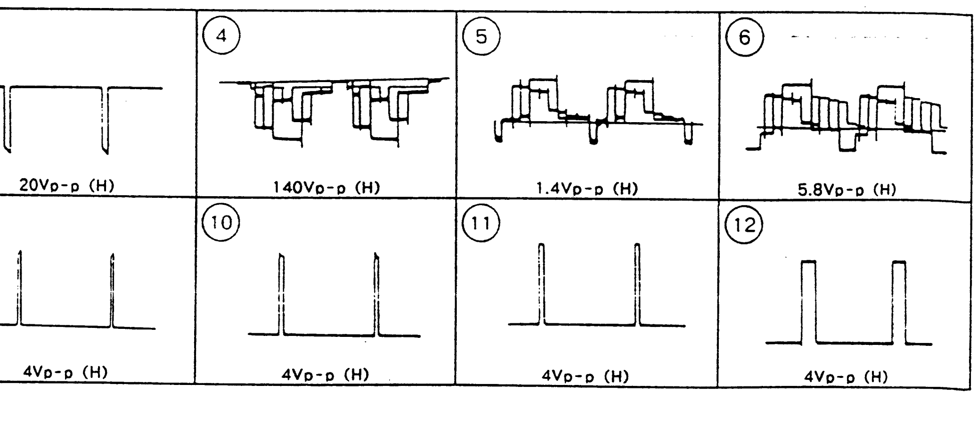

3
4
5
6
7
8
9
10
11
12
13
CAG-3
CAG-2
CAG-1
CAR-3
CAR-2
CAR-1
CAR-4
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC101
IC102
IC104
IC201
IC202
IC204
CARJ1
1-639-939-14
CA (RG)
CAD
SONY

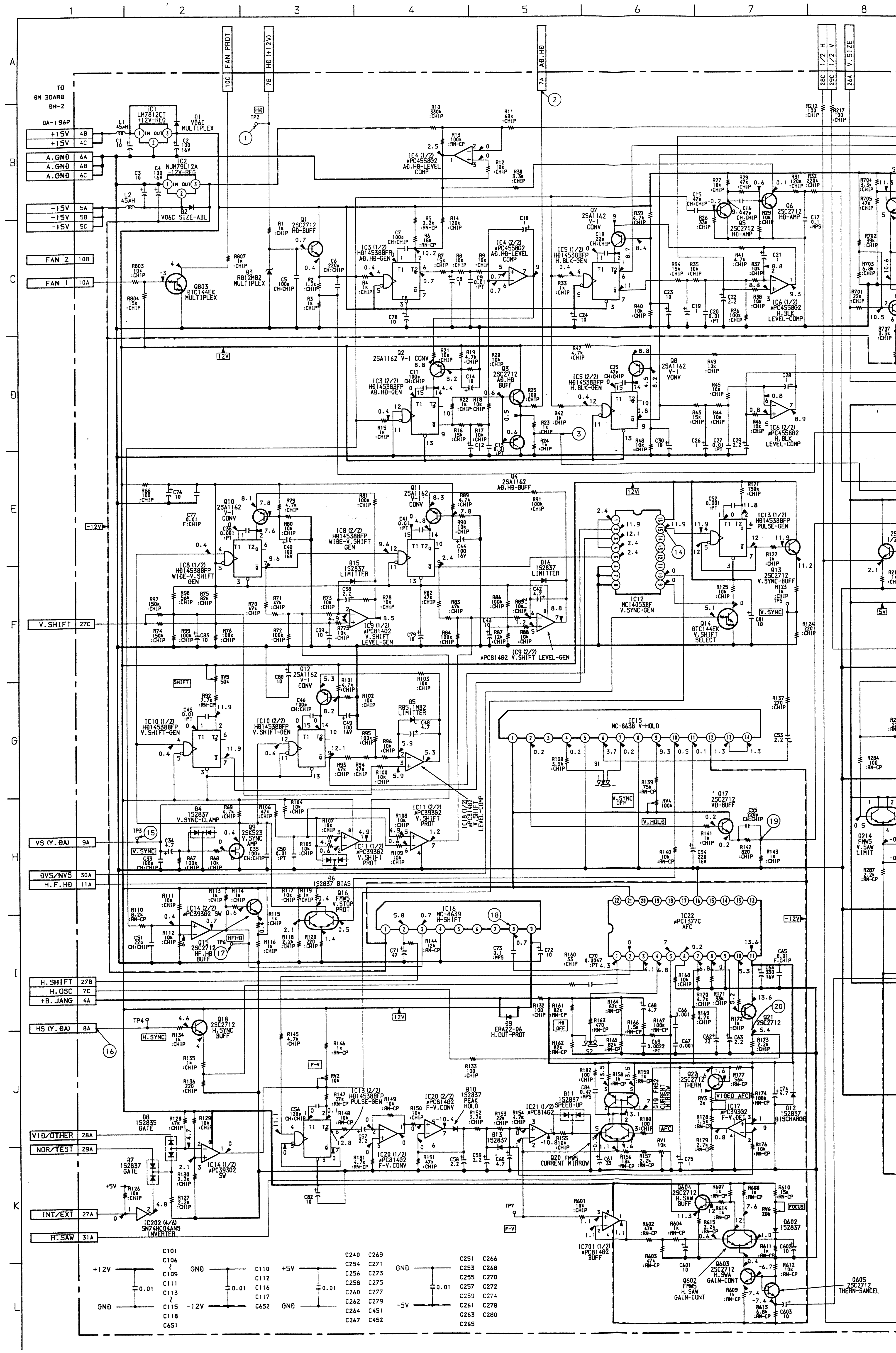

1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
TO BM BOARD
J1
CARJ1
TO CBR BOARD
CN251
CAR-2
4P
YEL
:S-MICRO
CAR-1
4P
WHT
:S-MICRO
GND
GND
NC
G1
IC104
TY885002A
R-SIGNAL-PROCESS
IC101
VPH06
R-VIDEO-OUT
VIDEO PACK
Q113
2SC2785
Rr-CORR
D115
1SS119
Rr-CORR
D1
V06C -12V-REG-PROT
IC1
LM7912CT
-12V-REG
IC2
LM7812CT
+12V-REG
D2
V06C
+12V-REG
PROT
Q1
2SC2785
CONTRAST
CONTROL
Q2
XOC144ES
+12V-PROT
D3
RD5.1ESB2
+12V-PROT
Q3
XOC144ES
+12V-PROT
Q4
2SC2785
-12V-PROT
D4
1SS119
12V-PROT
-15V
+15V
-12V
+12V
D101
1SS83
R-VIDEO-OUT-PROT
D102
1SS83TD
R-VIDEO-OUT-PROT
D113
1SS119
R-THERM-COMP
Q115
2SA1381
R-G1-CONT
Q102
2SC3209
R-G1-CONT
Q101
2SA1175
R-G1-CONT
D117
1SS119
R-OFF
SPOT-PROT
D118
1SS119
R-OFF
SPOT-PROT
D104
1SS119
R-THERM
COMP
Q104
2SA1381
R-CURRENT-SOURCE
Q105
2SC2785
R-IK-DET
D105
1SS83
R-IK-DET-PROT
D107
1SS119
R-IK-DET
PROT
Q103
2SA1381
R-IK-DET
D103
1SS119
R-IK-DET-PROT
D106
1SS119
R-IK-DET-PROT
Q106
2SC3209
R-IK-DET
D114
RD13ESB2
R-IK-DET-PROT
Q108
XOA144ES
R-AUTO-BKG-SW
Q109
XOA144ES
R-AUTO-BKG-SW
IC102 (1/2)
TL082CP
R-AUTO
BKG
IC102 (2/2)
TL082CP
R-AUTO
BKG
D120
1SS119
R-AUTO
BKG
D112
1SS119
R-AUTO
BKG-SW
Q111
2SK523
R-AUTO
BKG
Q110
XOC144ES
R-AUTO
BKG-SW
D121
1SS119
R-OUT-BKG
D122
1SS119
R-AUTO
BKG
Q112
2SC2785
R-IK-DET
CAR-4
GND 1
GND 2
+15V 3
+15V 4
-15V 5
-15V 6
GND 7
GND 8
1/2H 9
+12V PROT 10
HD 11
-12V PROT 12
VD 13
NC 14
DRV (B) 15
DRV (R) 16
BKG (B) 17
BKG (R) 18
ON/OFF (B) 19
ON/OFF (R) 20
NC 21
DRV (G) 22
NC 23
BKG (G) 24
NC 25
ON/OFF (G) 26
BLK 27
CONTRAST 28
BRT 29
B.P.C.P 30
TO CFA BOARD
CFA-1
IC3
NJM78L05A
+5V-REG
IC4
MC74HC4538AN
PULSE-GEN
IC5
MB675429
PULSE-GEN
IC6
MC74HC744AN
PULSE-GEN
IC7 (2/4)
MC74HC00AN
PULSE-GEN
IC7 (3/4)
MC74HC00AN
PULSE-GEN
IC7 (1/4)
MC74HC00AN
PULSE-GEN
IC7 (4/4)
MC74HC00AN
PULSE-GEN
Q8
2SA1175
BLK-P.GEN
Q9
2SA1175
BLK-P.GEN
Q10
2SC2785
BLK-P.GEN
Q11
2SC2785
OFF-SPOT
PROT
Q12
2SA1175
OFF-STOP
PROT
D14
RD6.8ESB2
OFF-SPOT
PROT
D15
1SS119
OFF-STOP-PROT
VD
HD
1/2H

• CA(RG) BOARD WAVEFORMS

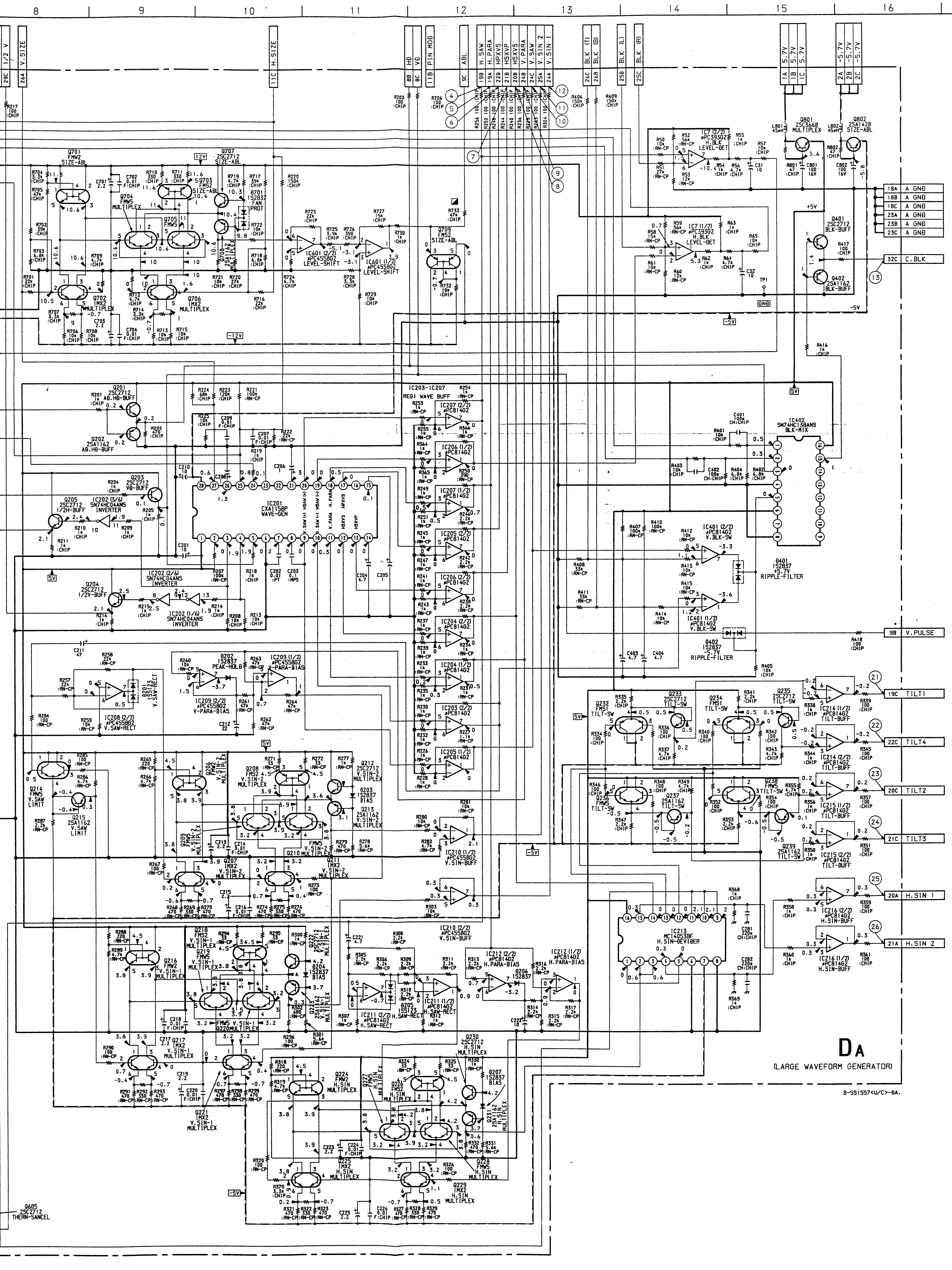



8
9
10
11
12
13
14
15
16
TO CBR BOARD CN256
CAR-1 4P WHT :S-MICRO
TO BM BOARD J2
CAGJ1
TO CBR BOARD CN253
CAR-3 4P RED :S-MICRO
TO CBG BOARD CN261
CAG-2 4P YEL :S-MICRO
TO CBG BOARD CN263
CAG-3 4P RED :S-MICRO
TO CBG BOARD CN266
CAG-1 4P WHT :S-MICRO
CAG-4 12P BLK :S-MICRO
TO CA (B) BOARD CAB-4
IC204 TY885002A G-SIGNAL-PROCESS
IC201 VPH06 G-VIDEO-OUT VIDEO PACK
IC202 (1/2) TL082CP G-AUTO-BKG
IC202 (2/2) TL082CP G-AUTO-BKG
IC8 (1/2) TL082CP PEAK&S.T.ABL
IC8 (2/2) TL082CP S.T.ABL
CAG-5 13P WHT :S-MICRO
TO CA (B) BOARD CAB-5
CAG-6 11P WHT :S-MICRO
TO CA (B) BOARD CAB-6
CA(RG)
(VIDEO OUT R, G)
B-SS1557<U/C>-CARG


20Vp-p (H)
④
140Vp-p (H)
⑤
1.4Vp-p (H)
⑥
5.8Vp-p (H)
4Vp-p (H)
⑩
4Vp-p (H)
⑪
4Vp-p (H)
⑫
4Vp-p (H)



TO
DM BOARD
DM-2
DA-196P
+15V 4B
+15V 4C
A.GND 6A
A.GND 6B
A.GND 6C
-15V 5A
-15V 5B
-15V 5C
FAN 2 10B
FAN 1 10A
V.SHIFT 27C
VS (Y.DA) 9A
DVS/NVS 30A
H.F.HD 11A
H.SHIFT 27B
H.OSC 7C
+B.JANG 4A
HS (Y.DA) 8A
VID/OTHER 28A
NOR/TEST 29A
INT/EXT 27A
H.SAW 31A
10C FAN PROT
7B HD (+12V)
7A AD.HD
28C 1/2 H
29C 1/2 V
26A V.SIZE
IC1 LM7812CT +12V-REG
IC2 NJM79L12A -12V-REG
D1 V06C MULTIPLEX
D2 V06C SIZE-ABL
Q803 DTC144EK MULTIPLEX
Q1 2SC2712 HD-BUFF
D3 RD12MB2 MULTIPLEX
IC3 (1/2) HD14538BFP AD.HD-GEN
IC4 (1/2) μPC4558G2 AD.HD-LEVEL COMP
IC4 (2/2) μPC4558G2 AD.HD-LEVEL COMP
Q7 2SA1162 V-I CONV
IC5 (1/2) HD14538BFP H.BLK-GEN
Q5 2SC2712 HD-AMP
Q6 2SC2712 HD-AMP
IC6 (1/2) μPC4558G2 H.BLK LEVEL-COMP
Q2 2SA1162 V-I CONV
IC3 (2/2) HD14538BFP AD.HD-GEN
Q3 2SC2712 AD.HD BUFF
IC5 (2/2) HD14538BFP H.BLK-GEN
Q8 2SA1162 V-I CONV
IC6 (2/2) μPC4558G2 H.BLK LEVEL-COMP
Q4 2SA1162 AD.HD-BUFF
Q10 2SA1162 V-I CONV
IC8 (1/2) HD14538BFP WIDE-V.SHIFT GEN
IC8 (2/2) HD14538BFP WIDE-V.SHIFT GEN
Q11 2SA1162 V-I CONV
D15 1S2837 LIMITTER
D16 1S2837 LIMITTER
IC9 (1/2) μPC814G2 V.SHIFT LEVEL-GEN
IC9 (2/2) μPC814G2 V.SHIFT LEVEL-GEN
IC12 MC14053BF V.SYNC-GEN
IC13 (1/2) HD14538BFP PULSE-GEN
Q13 2SC2712 V.SYNC-BUFF
Q14 DTC144EK V.SHIFT SELECT
SHIFT
IC10 (1/2) HD14538BFP V.SHIFT-GEN
Q12 2SA1162 V-I CONV
IC10 (2/2) HD14538BFP V.SHIFT-GEN
D5 RD5.1MB2 LIMITTER
IC18 (1/2) μPC814G2 V.SHIFT LEVEL-COMP
IC15 MC-8638 V-HOLD
V.SYNC OFF
V.HOLD
Q17 2SC2712 VD-BUFF
D4 1S2837 V.SYNC-CLAMP
Q9 2SK523 V.SYNC AMP
IC11 (1/2) μPC393G2 V.SHIFT PROT
IC11 (2/2) μPC393G2 V.SHIFT PROT
Q214 FMW5 V.SAW LIMIT
D6 1S2837 BIAS
Q16 FMW5 V.STOP PROT
IC14 (2/2) μPC393G2 SW
Q15 2SC2712 HF.HD BUFF
HFHD
IC16 MC-8639 H-SHIFT
IC22 μPC1377C AFC
D9 ERA22-06 H.OUT-PROT
HD OFF
Q21 2SC2712
Q18 2SC2712 H.SYNC BUFF
H.SYNC
F-V
IC13 (2/2) HD14538BFP PULSE-GEN
IC20 (1/2) μPC814G2 F-V.CONV
IC20 (2/2) μPC814G2 F-V.CONV
D10 1S2837 PEAK HOLD
D13 1S2837
D11 1S2837 SPEED-UP
IC21 (1/2) μPC814G2
Q20 FMW5 CURRENT MIRROW
Q19 FMS2 CURRENT MIRROR
Q22 2SC2712 THERM
VIDEO AFC
IC17 μPC393G2 F-V.DET
D12 1S2837 DISCHARGE
AFC
D8 1S2835 GATE
D7 1S2837 GATE
IC14 (1/2) μPC393G2 SW
IC202 (4/6) SN74HC04ANS INVERTER
IC701 (1/2) μPC814G2 BUFF
Q604 2SC2712 H.SAW BUFF
Q603 2SC2712 H.SWA GAIN-CONT
Q602 FMW5 H.SAW GAIN-CONT
Q605 2SC2712 THERM-SANCEL
D602 1S2837
FOCUS
TP2 TP3 TP4 TP5 TP6 TP7
+12V C101 C106 ~ C109 C111 C113 ~ C115 C118 C651 0.01 GND
GND C110 C112 C116 C117 C652 0.01 -12V
+5V C240 C254 C256 C258 C260 C262 C264 C267 C269 C271 C273 C275 C277 C279 C451 C452 0.01 GND
GND C251 C253 C255 C257 C259 C261 C263 C265 C266 C268 C270 C272 C274 C278 C280 0.01 -5V
1 2 3 4 5 6 7 8
A B C D E F G H I J K L


8
9
10
11
12
13
14
15
16
1/2 V
V.SIZE
H.SIZE
HD
VD
PIN MOD
ABL
H.SAW
H.PARA
HPXVS
HSXVP
HSXVS
V.PARA
V.SAW
V.SIN 2
V.SIN 1
BLK (T)
BLK (B)
BLK (L)
BLK (R)
5.7V
-5.7V
18A A GND
18B A GND
18C A GND
23A A GND
23B A GND
23C A GND
32C C.BLK
9B V.PULSE
19C TILT1
22C TILT4
20C TILT2
21C TILT3
20A H.SIN 1
21A H.SIN 2
Q701 FMW2 SIZE-ABL
Q707 2SC2712 SIZE-ABL
Q703 FMS2 SIZE-ABL
Q704 FMW5 MULTIPLEX
Q705 FMW5
Q708 2SA1162
D701 1S2837 FAN PROT
Q702 IMX2 MULTIPLEX
Q706 IMX2 MULTIPLEX
IC601 (2/2) μPC4558G2 LEVEL-SHIFT
IC601 (1/2) μPC4558G2 LEVEL-SHIFT
Q709 FMS2 SIZE-ABL
IC7 (2/2) μPC393G2 H.BLK LEVEL-DET
IC7 (1/2) μPC393G2 H.BLK LEVEL-DET
Q801 2SC3668 MULTIPLEX
Q802 2SA1428 SIZE-ABL
Q401 2SC2712 BLK-BUFF
Q402 2SA1162 BLK-BUFF
TP1
GND
-5V
5V
12V
-12V
Q201 2SC2712 A0.H0-BUFF
Q202 2SA1162 A0.H0-BUFF
Q203 2SC2712 V0-BUFF
Q205 2SC2712 1/2H-BUFF
IC202 (3/6) SN74HC04ANS INVERTER
IC202 (2/6) SN74HC04ANS INVERTER
IC202 (1/6) SN74HC04ANS INVERTER
Q204 2SC2712 1/2V-BUFF
IC201 CXA1158P WAVE-GEN
IC203-IC207 REG1 WAVE BUFF
IC207 (2/2) μPC814G2
IC206 (1/2) μPC814G2
IC207 (1/2) μPC814G2
IC205 (2/2) μPC814G2
IC206 (2/2) μPC814G2
IC204 (2/2) μPC814G2
IC204 (1/2) μPC814G2
IC203 (2/2) μPC814G2
IC205 (1/2) μPC814G2
IC402 SN74HC138ANS BLK-MIX
IC401 (2/2) μPC814G2 V.BLK-SW
IC401 (1/2) μPC814G2 V.BLK-SW
D401 1S2837 +5.7V RIPPLE-FILTER
D402 1S2837 -5.7V RIPPLE-FILTER
IC208 (2/2) μPC4558G2 V.SAW-RECT
D201 1S2837 V.SAW-RECT
D202 1S2837 PEAK-HOLD
IC209 (1/2) μPC4558G2 V-PARA-BIAS
IC209 (2/2) μPC4558G2 V-PARA-BIAS
Q232 FMS1 TILT-SW
Q233 2SC2712 TILT-SW
Q234 FMS1 TILT-SW
Q235 2SC2712 TILT-SW
IC214 (1/2) μPC814G2 TILT-BUFF
IC214 (2/2) μPC814G2 TILT-BUFF
Q236 FMW5 TILT-SW
Q237 2SA1162 TILT-SW
Q238 FMW5 TILT-SW
Q239 2SA1162 TILT-SW
IC215 (1/2) μPC814G2 TILT-BUFF
IC215 (2/2) μPC814G2 TILT-BUFF
Q214 FMW5 V.SAW LIMIT
Q215 2SA1162 V.SAW LIMIT
Q206 FMW2 V.SIN-2 MULTIPLEX
Q208 FMS2 V.SIN-2 MULTIPLEX
Q212 2SC2712 V.SIN-2 MULTIPLEX
D203 1S2837 BIAS
Q213 2SA1162 V.SIN-2 MULTIPLEX
Q209 FMW5 V.SIN-2 MULTIPLEX
Q210 FMW5 V.SIN-2 MULTIPLEX
Q207 IMX2 V.SIN-2 MULTIPLEX
Q211 IMX2 V.SIN-2 MULTIPLEX
IC210 (1/2) μPC4558G2 V.SIN-BUFF
IC210 (2/2) μPC4558G2 V.SIN-BUFF
IC216 (2/2) μPC814G2 H.SIN-BUFF
IC216 (1/2) μPC814G2 H.SIN-BUFF
IC213 MC14053BF H.SIN-DEVIDER
Q218 FMS2 V.SIN-1 MULTIPLEX
Q219 FMW5
Q216 FMW2 V.SIN-1 MULTIPLEX
Q222 2SC2712 V.SIN-1 MULTIPLEX
D204 1S2837 BIAS
Q223 2SA1162 V.SIN-1 MULTIPLEX
Q220 FMW5 V.SIN-1 MULTIPLEX
Q217 IMX2 V.SIN-1 MULTIPLEX
Q221 IMX2 V.SIN-1 MULTIPLEX
IC211 (2/2) μPC814G2 H.SAW-RECT
D205 1SS123 H.SAW-RECT
IC211 (1/2) μPC814G2 H.SAW-RECT
IC212 (2/2) μPC814G2 H.PARA-BIAS
D206 1S2837
IC212 (1/2) μPC814G2 H.PARA-BIAS
Q230 2SC2712 H.SIN MULTIPLEX
Q224 FMW2 H.SIN MULTIPLEX
Q227 FMW5 H.SIN MULTIPLEX
Q226 FMS2 H.SIN MULTIPLEX
D207 1S2837 BIAS
Q231 2SA1162 H.SIN MULTIPLEX
Q228 FMW5 H.SIN MULTIPLEX
Q225 IMX2 H.SIN MULTIPLEX
Q229 IMX2 H.SIN MULTIPLEX
Q605 2SC2712 THERN-SANCEL

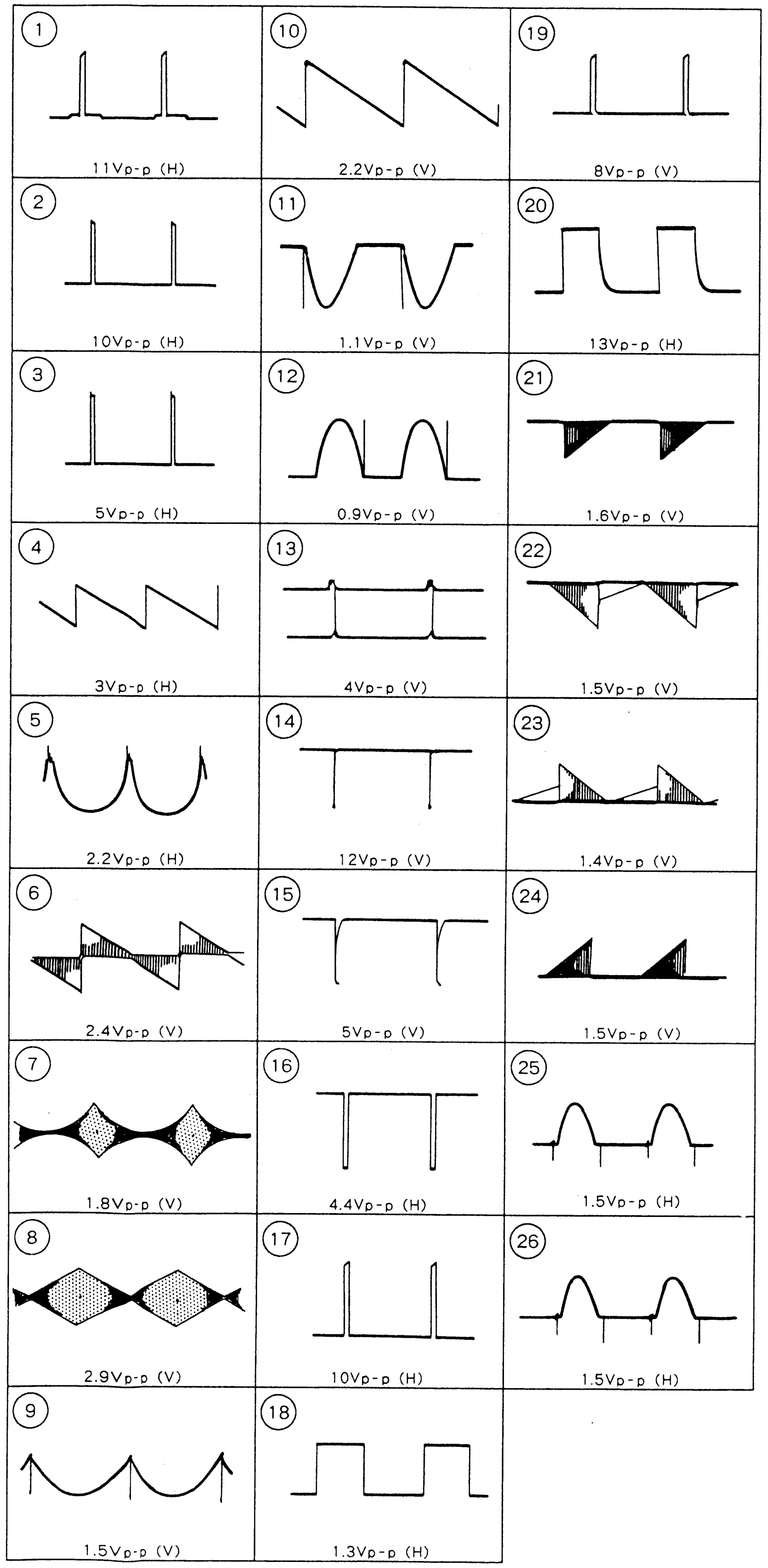
DA

(LARGE WAVEFORM GENERATOR)

B-SS1SS7<U/C>-DA.

DA [LARGE WAVEFORM GENERATOR]

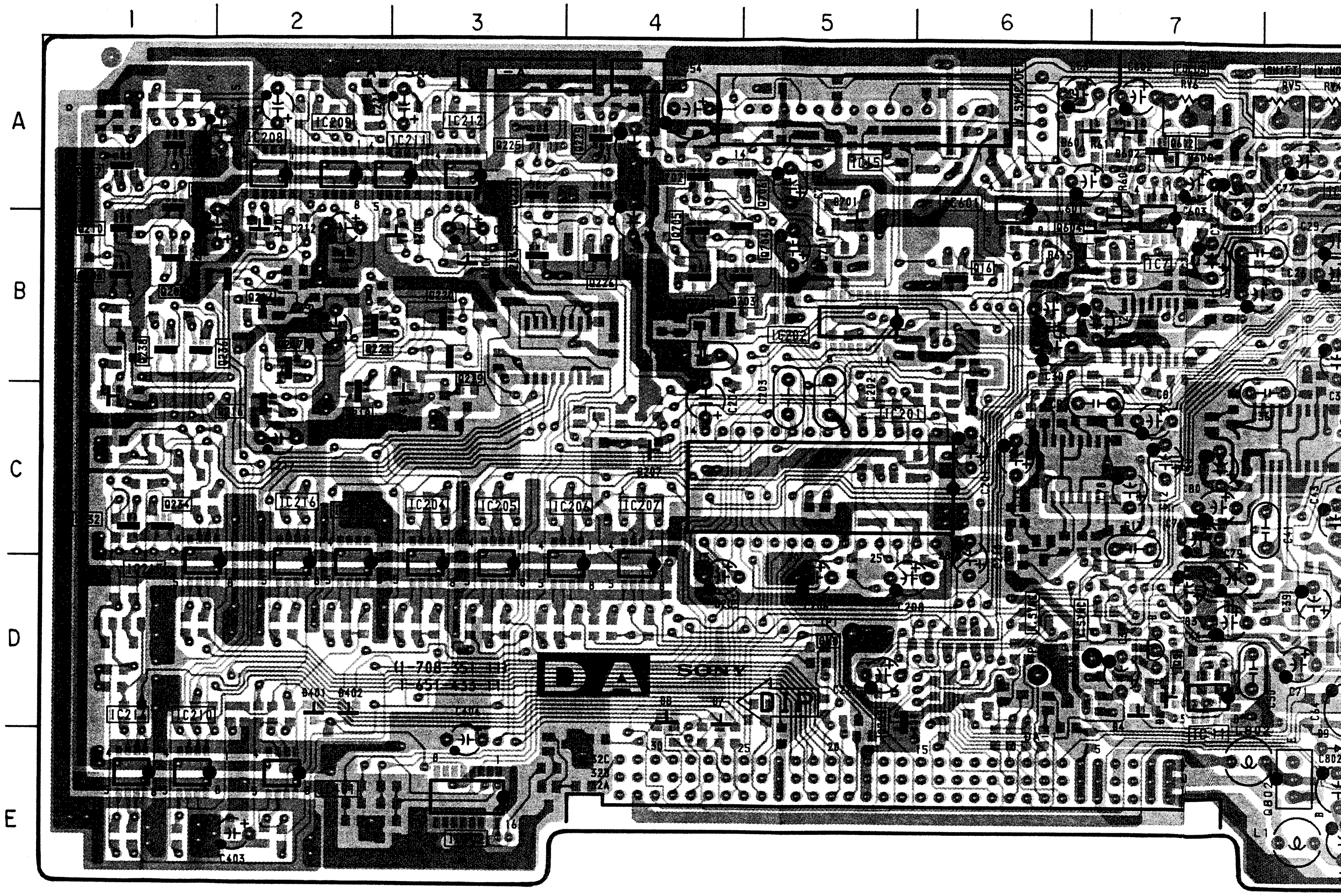
• DA BOARD WAVEFORMS

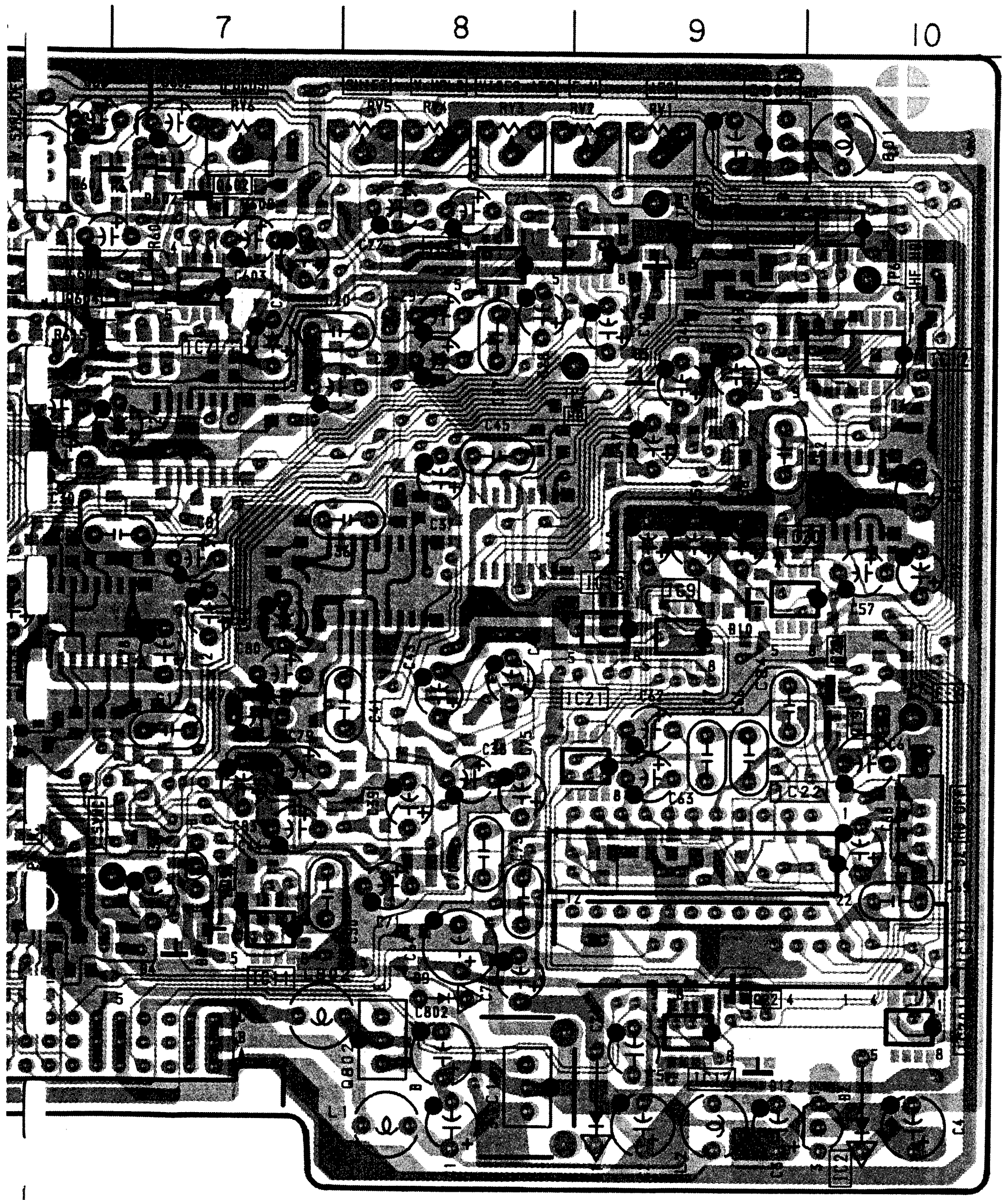


DA BOARD (COMPONENT SIDE)

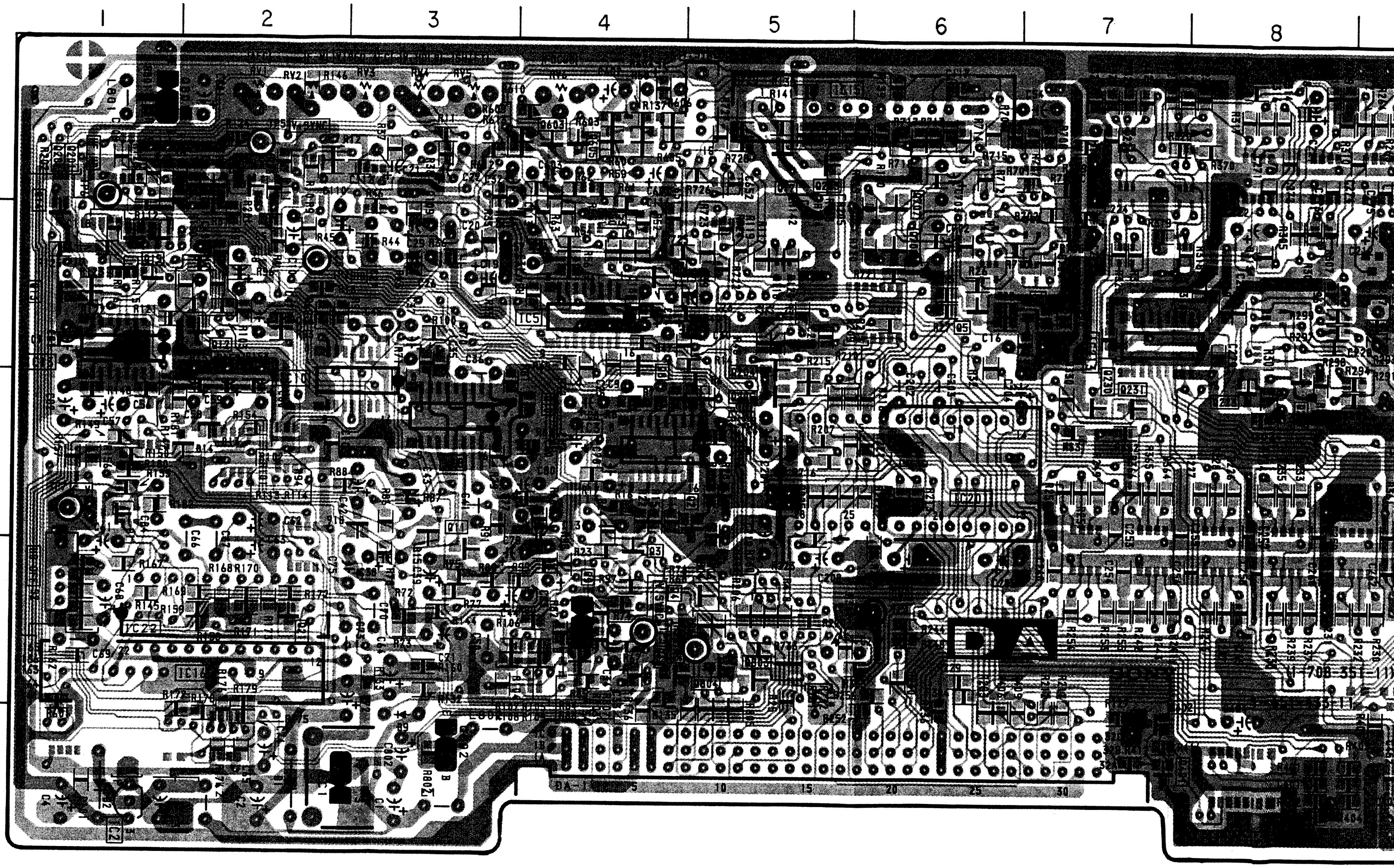
IC	
IC1	E - 8
IC2	E - 10
IC4	A - 9
IC6	A - 8
IC7	B - 7
IC9	C - 9
IC11	D - 7
IC12	B - 10
IC14	A - 10
IC15	A - 5
IC16	D - 9
IC17	E - 9
IC18	C - 9
IC20	C - 9
IC21	D - 9
IC22	D - 9
IC201	C - 5
IC202	B - 5
IC203	D - 2
IC204	D - 3
IC205	D - 3
IC206	D - 4
IC207	D - 4
IC208	A - 2
IC209	A - 2
IC210	E - 1
IC211	A - 3
IC212	A - 3
IC214	E - 1
IC215	D - 1
IC216	C - 2
IC401	E - 2
IC402	E - 3
IC601	A - 6
IC701	E - 10
TRANSISTOR	
Q9	E - 7
Q16	B - 6
Q19	C - 10
Q20	C - 10
Q22	E - 9
Q206	B - 1
Q207	A - 1
Q208	B - 1
Q209	A - 1
Q210	B - 1
Q211	A - 1
Q914	B - 2
Q916	C - 2
Q217	B - 2
Q218	C - 2
Q219	B - 3
Q220	B - 3
Q221	B - 2
Q224	B - 3
Q225	A - 3
Q226	B - 4
Q227	A - 4
Q228	A - 3
Q229	A - 4
Q232	C - 1
Q234	C - 1
Q236	B - 1
Q238	B - 1
Q602	A - 7
Q604	B - 7
Q701	B - 4
Q702	A - 4
Q703	B - 5
Q704	B - 5
Q705	B - 4
Q706	A - 5
Q709	D - 5
Q801	A - 9
Q802	E - 8
DIODE	
D1	E - 9
D2	E - 10
D3	A - 9
D4	D - 7
D5	B - 9
D6	D - 7
D7	D - 4
D8	D - 4
D9	E - 8
D10	C - 9
D12	E - 9
D201	B - 2
D202	B - 2
D203	C - 1
D204	C - 3
D205	B - 3
D206	B - 3
D207	C - 4
D401	D - 2
D402	D - 2
D602	A - 7
D701	B - 5
VARIABLE RESISTOR	
RV1	A - 9
RV2	A - 9
RV3	A - 8
RV4	A - 8
RV5	A - 8
RV6	A - 7

- DA BOARD - ⟨Component Side⟩


1
2
3
4
5
6
7
A
B
C
D
E
IC208
IC209
IC211
IC212
IC216
IC204
IC205
IC206
IC207
IC214
IC210
IC202
IC201
C403
DA
SONY

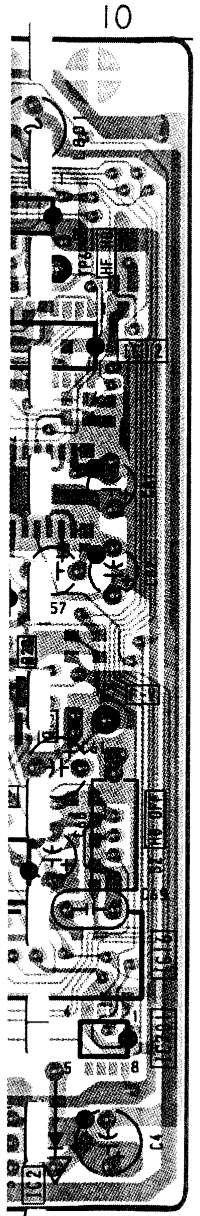

7
8
9
10
IC21
IC22
C63
Q802
C802

〈Conductor Side〉

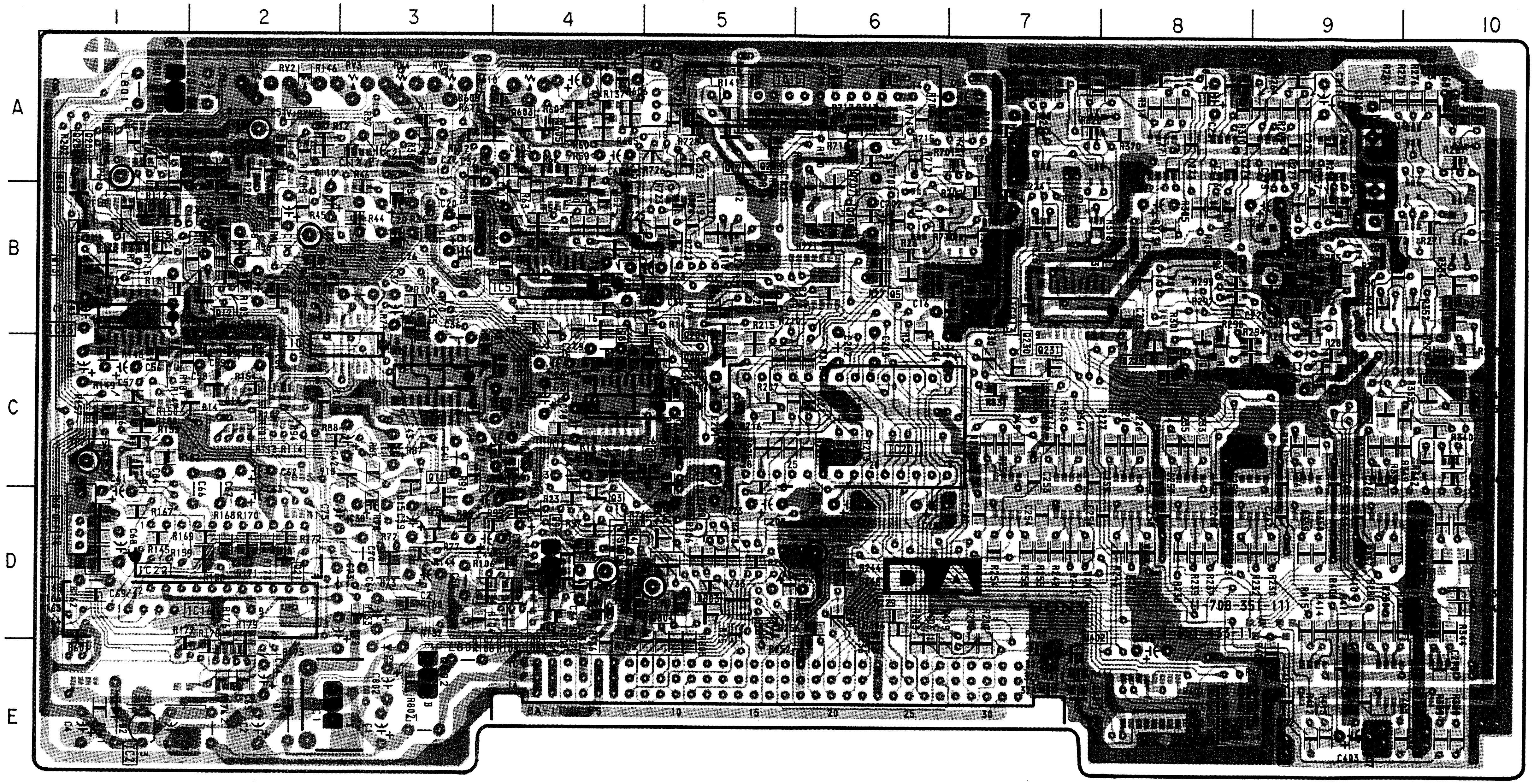

1
2
3
4
5
6
7
8
A
B
C
D
E
IC5
IC12
IC22
R168R170
R215
C16
DA
708-351-11

Note :

- ▨ : Pattern
- ▨ : Pattern



(Conductor Side)



DA BOARD
(CONDUCTOR SIDE)

IC	
IC1	E – 2
IC2	E – 1
IC3	C – 4
IC5	B – 4
IC8	C – 3
IC10	C – 2
IC13	B – 1
IC15	A – 5
IC16	D – 2
IC22	D – 1
IC201	C – 6
IC213	B – 7

TRANSISTOR	
Q1	A – 2
Q2	C – 5
Q3	D – 4
Q4	D – 5
Q5	B – 6
Q6	B – 7
Q7	B – 4
Q8	B – 4
Q9	D – 4
Q10	C – 4
Q11	C – 3
Q12	B – 2
Q13	B – 1
Q14	B – 1
Q15	B – 1
Q17	A – 5
Q18	D – 4
Q21	D – 2
Q201	B – 1
Q202	B – 1
Q203	A – 5
Q204	B – 5
Q205	C – 5
Q212	B – 10
Q213	B – 10
Q215	B – 9
Q222	C – 8
Q223	C – 8
Q230	C – 7
Q231	C – 7
Q233	D – 10
Q235	D – 10
Q237	C – 9
Q239	C – 10
Q401	E – 7
Q402	E – 7
Q603	A – 4
Q605	A – 4
Q707	B – 6
Q708	B – 6
Q801	A – 1
Q802	E – 3
Q803	D – 5

DIODE	
D1	E – 2
D2	E – 1
D9	E – 3
D11	C – 1
D13	C – 2
D15	D – 3
D16	C – 3

VARIABLE RESISTOR	
RV1	A – 2
RV2	A – 2
RV3	A – 3
RV4	A – 3
RV5	A – 3
RV6	A – 4

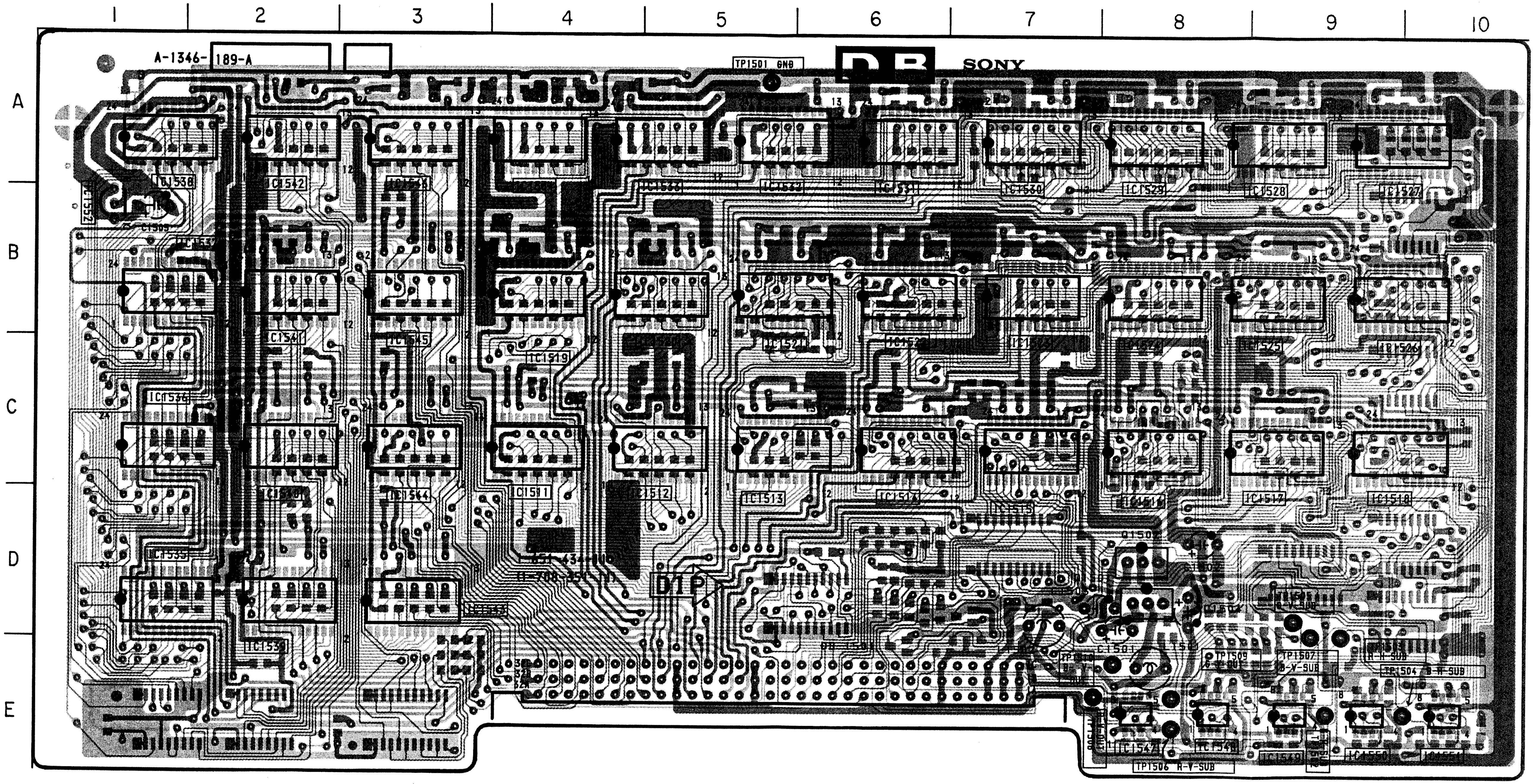
Note :
- ░ : Pattern from the side which enables seeing.
- ▓ : Pattern of the rear side.

DB [ELECTRONIC VR]

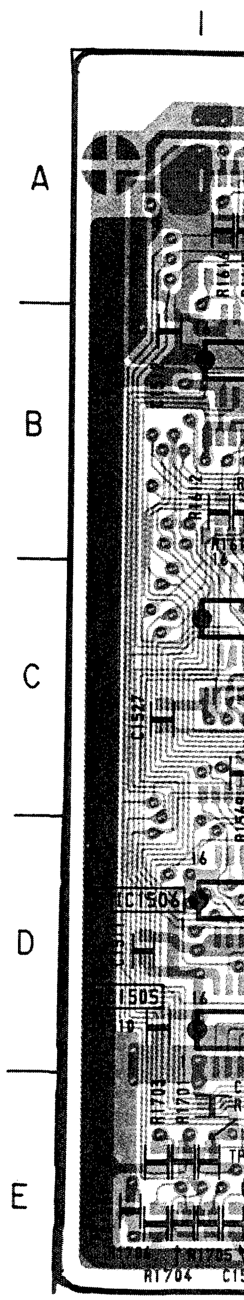
DB BOARD
COMPONENT SIDE)

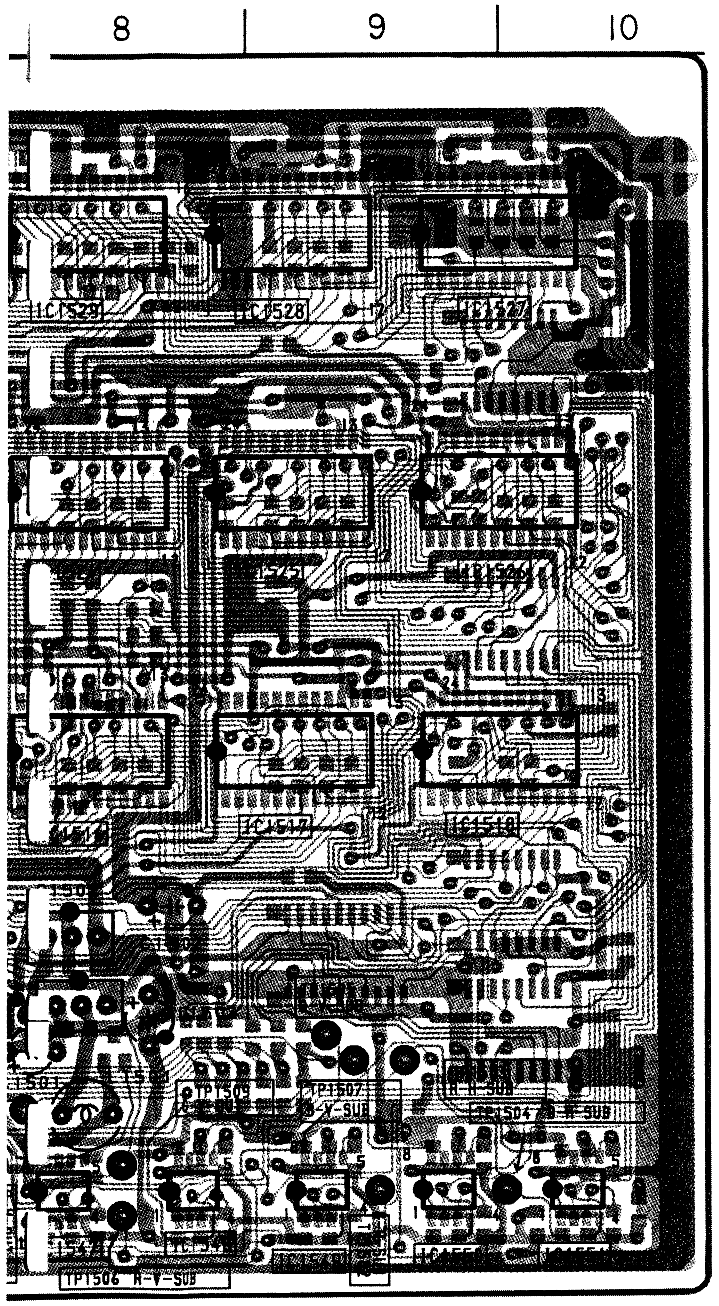
IC	
IC1511	C-4
IC1512	C-5
IC1513	C-5
IC1514	C-6
IC1515	C-7
IC1516	C-8
IC1517	C-9
IC1518	C-10
IC1519	B-4
IC1520	B-5
IC1521	B-5
IC1522	B-6
IC1523	B-7
IC1524	B-8
IC1525	B-9
IC1526	B-10
IC1527	A-10
IC1528	A-9
IC1529	A-8
IC1530	A-7
IC1531	A-6
IC1532	A-5
IC1533	A-5
IC1534	A-4
IC1535	D-1
IC1536	C-1
IC1537	B-1
IC1538	A-1
IC1539	D-2
IC1540	C-2
IC1541	B-2
IC1542	A-2
IC1543	D-3
IC1544	C-3
IC1545	B-3
IC1546	A-3
IC1547	E-8
IC1548	E-8
IC1549	E-9
IC1550	E-9
IC1551	E-10
IC1552	B-1
TRANSISTOR	
Q1501	D-8
Q1502	D-8

– DB BOARD – ⟨Component Side⟩

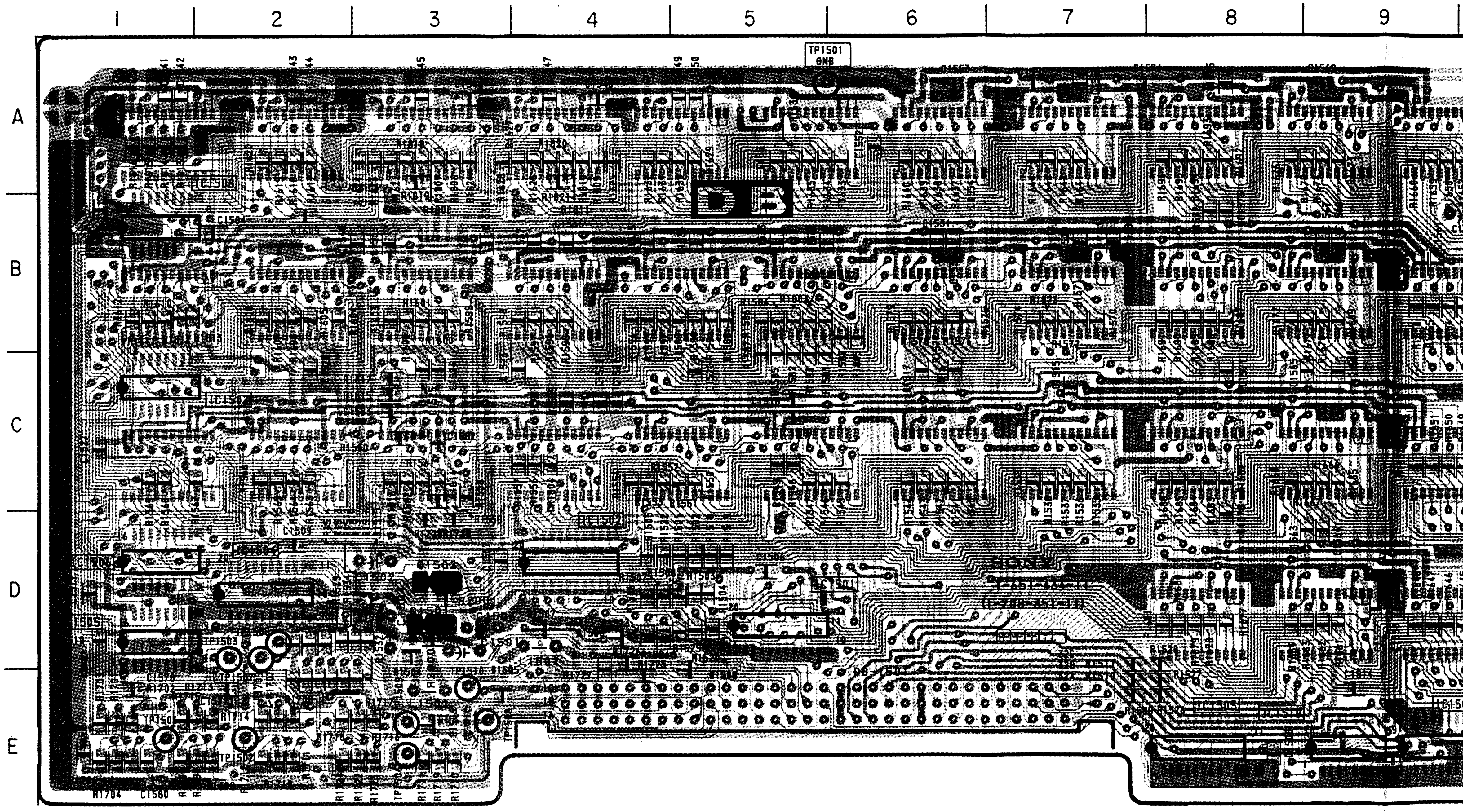

1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
A-1346-189-A
TP1501 GND
DB
SONY
IC1538
IC1542
IC1546
IC1534
IC1533
IC1532
IC1531
IC1530
IC1529
IC1528
IC1527
IC1552
IC1537
IC1541
IC1545
IC1519
IC1520
IC1521
IC1522
IC1523
IC1524
IC1525
IC1526
IC1536
IC1540
IC1544
IC1511
IC1512
IC1513
IC1514
IC1515
IC1516
IC1517
IC1518
IC1535
IC1539
IC1543
Q1501
Q1502
C1501
TP1509
TP1507 B-V-SUB
TP1504 B-H-SUB
TP1506 R-V-SUB
IC1547
IC1548
IC1549
IC1550
IC1551

⟨Condu


1
A
B
C
D
E
IC1505
R1704


8
9
10
IC1529
IC1528
IC1527
IC1517
IC1518
TP1509
TP1507
TP1504
TP1506 R-V-SUB

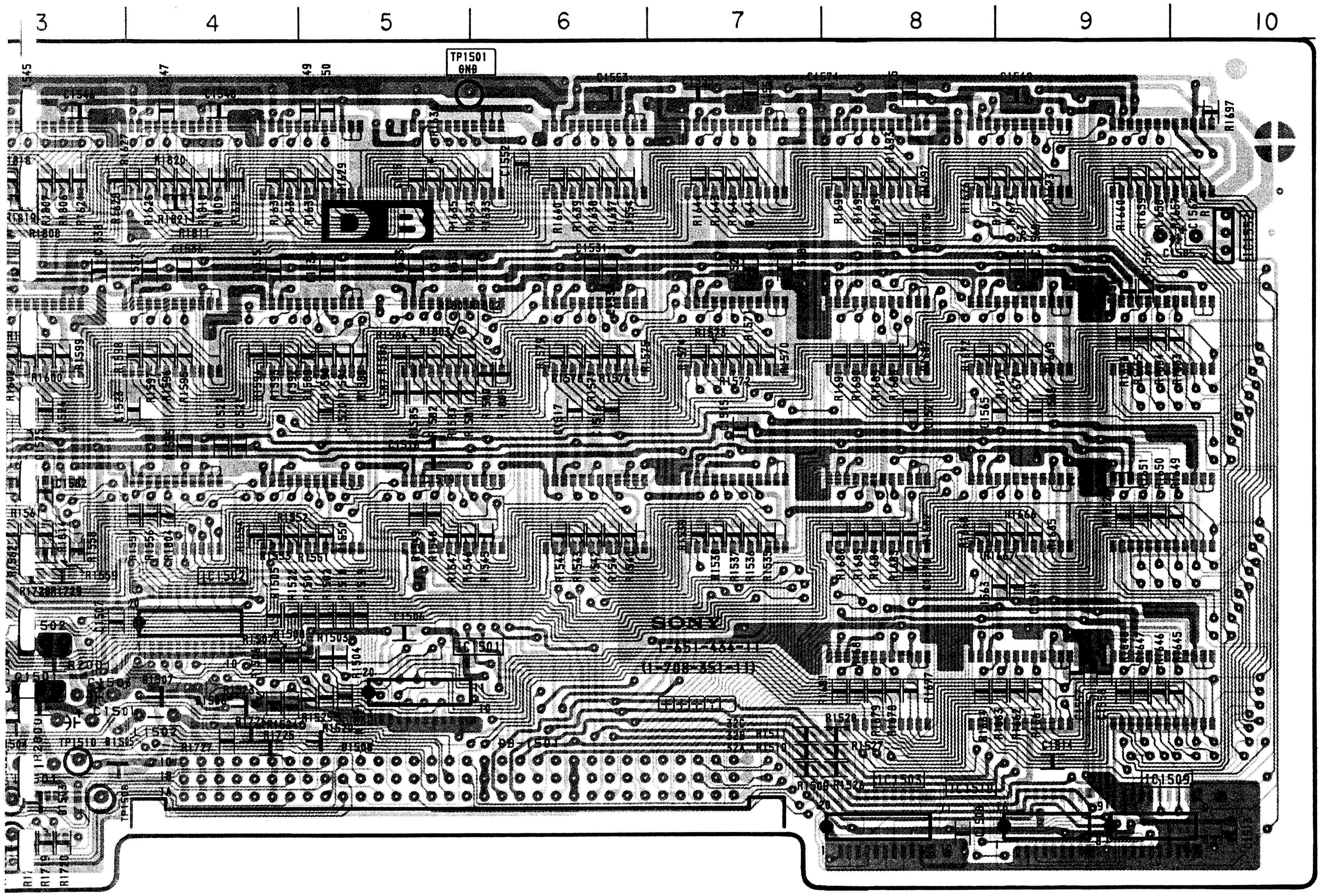
〈Conductor Side〉


1
2
3
4
5
6
7
8
9
A
B
C
D
E
TP1501
GND
DB
SONY
IC1507
IC1505
IC1502
IC1503
IC1501
C1504
C1509
C1580
R1704
TP1502
TP1510

Note :

• ░ : F

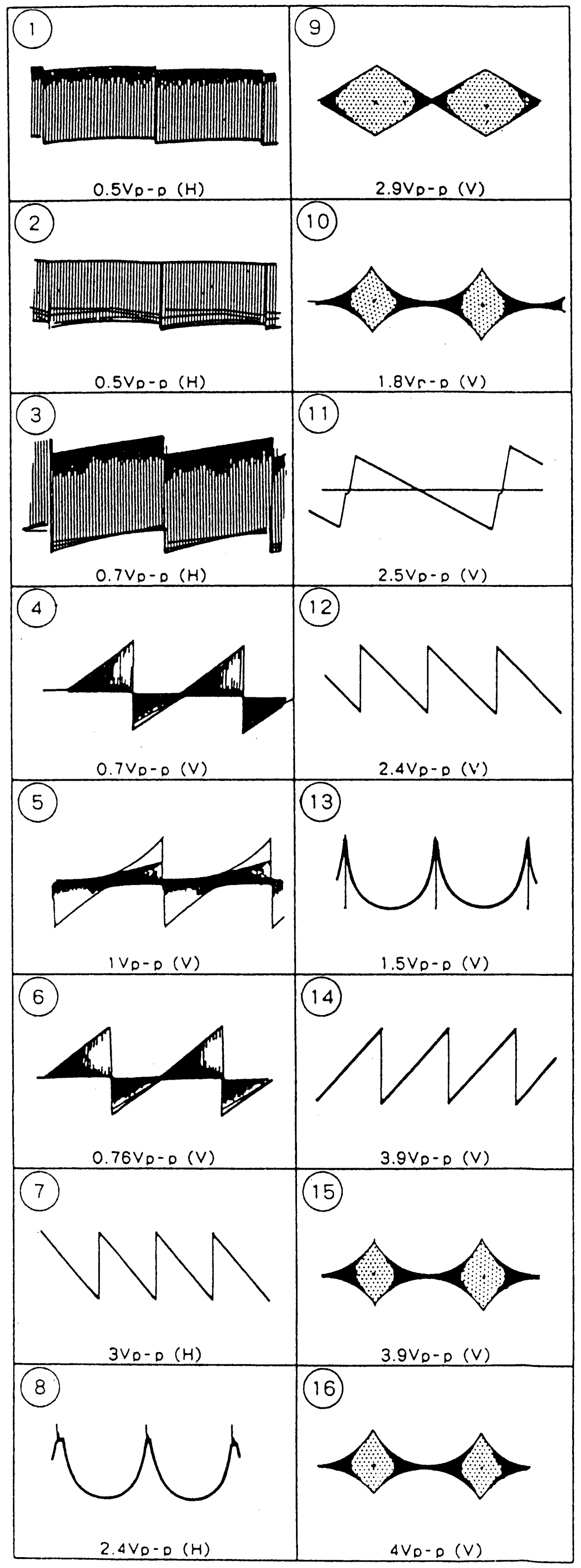
• ▓ : F


3
4
5
6
7
8
9
10
TP1501
GND
DB
SONY
1-651-444-11
(1-208-351-11)
IC1501
IC1502
IC1503
IC1509
IC1510

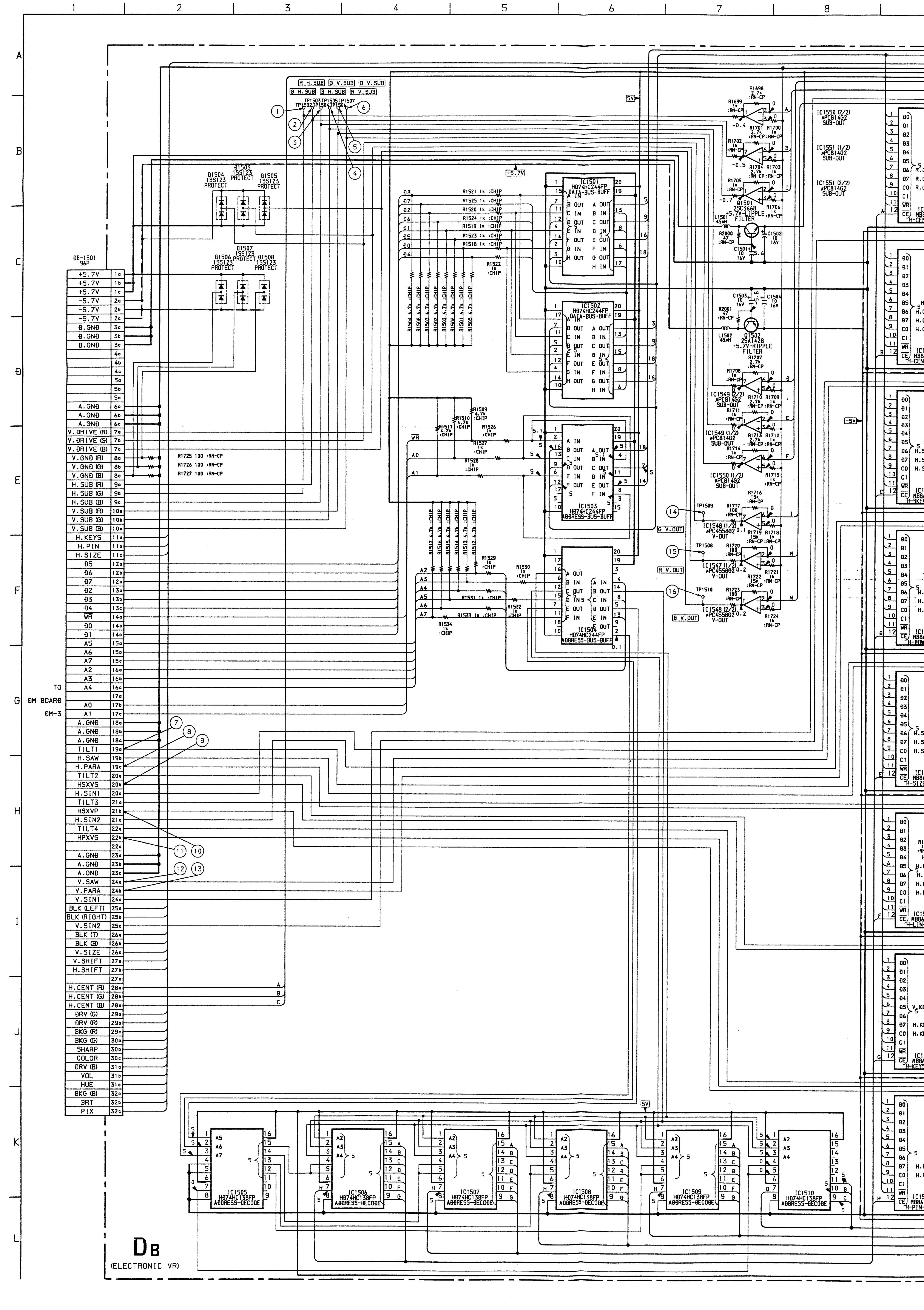
DB BOARD (CONDUCTOR SIDE)

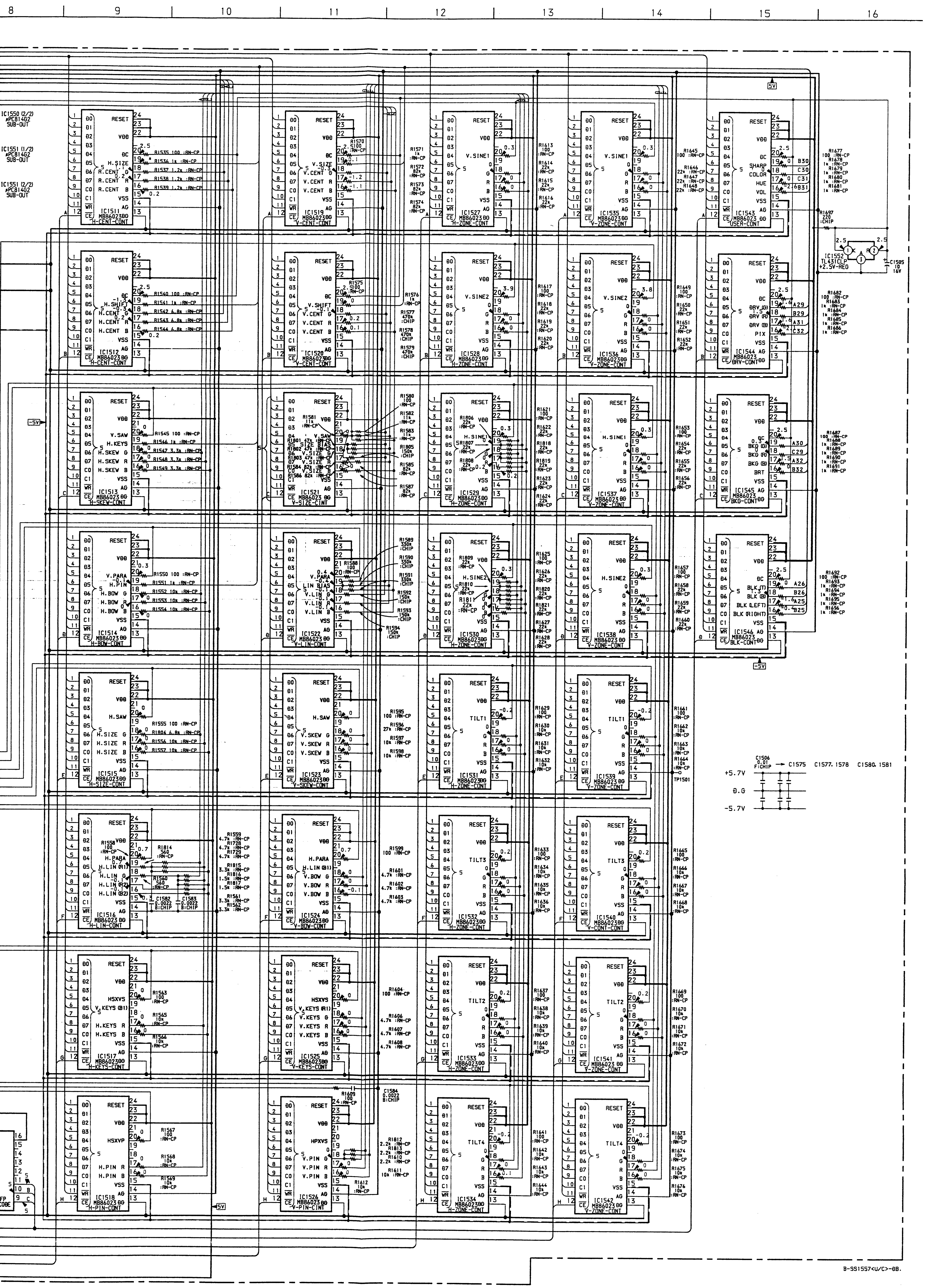
IC	
IC1501	D – 5
IC1502	D – 4
IC1503	E – 8
IC1504	D – 2
IC1505	D – 1
IC1506	D – 1
IC1507	C – 1
IC1508	B – 1
IC1509	E – 9
IC1510	E – 9
IC1552	B – 10
TRANSISTOR	
Q1501	D – 3
Q1502	D – 3
DIODE	
D1503	E – 3
D1504	D – 3
D1505	E – 3
D1506	D – 4
D1507	D – 4
D1508	E – 5

• DB BOARD WAVEFORMS



Note :
- ▒ : Pattern from the side which enables seeing.
- ■ : Pattern of the rear side.


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
L
R H.SUB
G V.SUB
B V.SUB
G H.SUB
B H.SUB
R V.SUB
TP1503 TP1505 TP1507
TP1502 TP1504 TP1506
①
②
③
④
⑤
⑥
D1504 1SS123 PROTECT
D1503 1SS123 PROTECT
D1505 1SS123 PROTECT
D1507 1SS123
D1506 PROTECT
D1508 1SS123 PROTECT
-5.7V
5V
DB-1501 96P
+5.7V 1a
+5.7V 1b
+5.7V 1c
-5.7V 2a
-5.7V 2b
-5.7V 2c
D.GND 3a
D.GND 3b
D.GND 3c
A.GND 6a
A.GND 6b
A.GND 6c
V.DRIVE (R) 7a
V.DRIVE (G) 7b
V.DRIVE (B) 7c
V.GND (R) 8a
V.GND (G) 8b
V.GND (B) 8c
H.SUB (R) 9a
H.SUB (G) 9b
H.SUB (B) 9c
V.SUB (R) 10a
V.SUB (G) 10b
V.SUB (B) 10c
H.KEYS 11a
H.PIN 11b
H.SIZE 11c
D5 12a
D6 12b
D7 12c
D2 13a
D3 13b
D4 13c
WR 14a
D0 14b
D1 14c
A5 15a
A6 15b
A7 15c
A2 16a
A3 16b
A4 16c
A0 17b
A1 17c
A.GND 18a
A.GND 18b
A.GND 18c
TILT1 19a
H.SAW 19b
H.PARA 19c
TILT2 20a
HSXVS 20b
H.SIN1 20c
TILT3 21a
HSXVP 21b
H.SIN2 21c
TILT4 22a
HPXVS 22b
A.GND 23a
A.GND 23b
A.GND 23c
V.SAW 24a
V.PARA 24b
V.SIN1 24c
BLK (LEFT) 25a
BLK (RIGHT) 25b
V.SIN2 25c
BLK (T) 26a
BLK (B) 26b
V.SIZE 26c
V.SHIFT 27a
H.SHIFT 27b
H.CENT (R) 28a
H.CENT (G) 28b
H.CENT (B) 28c
DRV (G) 29a
DRV (R) 29b
BKG (R) 29c
BKG (G) 30a
SHARP 30b
COLOR 30c
DRV (B) 31a
VOL 31b
HUE 31c
BKG (B) 32a
BRT 32b
PIX 32c
TO DM BOARD DM-3
⑦
⑧
⑨
⑩
⑪
⑫
⑬
R1725 100 :RN-CP
R1726 100 :RN-CP
R1727 100 :RN-CP
R1521 1k :CHIP
R1525 1k :CHIP
R1520 1k :CHIP
R1524 1k :CHIP
R1519 1k :CHIP
R1523 1k :CHIP
R1518 1k :CHIP
R1522 1k :CHIP
R1504 4.7k :CHIP
R1503 4.7k :CHIP
R1502 4.7k :CHIP
R1506 4.7k :CHIP
R1501 4.7k :CHIP
R1505 4.7k :CHIP
IC1501 HD74HC244FP DATA-BUS-BUFF
IC1502 HD74HC244FP DATA-BUS-BUFF
IC1503 HD74HC244FP ADDRESS-BUS-BUFF
IC1504 HD74HC244FP ADDRESS-BUS-BUFF
A IN
B OUT
C IN
D OUT
E IN
F OUT
G IN
H OUT
A OUT
B IN
C OUT
D IN
E OUT
F IN
G OUT
H IN
R1509 4.7k :CHIP
R1510 4.7k :CHIP
R1511 4.7k :CHIP
R1526 1k :CHIP
R1527 1k :CHIP
R1528 1k :CHIP
WR
A0
A1
R1512 4.7k :CHIP
R1516 4.7k :CHIP
R1515 4.7k :CHIP
R1514 4.7k :CHIP
R1513 4.7k :CHIP
R1517 4.7k :CHIP
R1529 1k :CHIP
R1530 1k :CHIP
R1531 1k :CHIP
R1532 1k :CHIP
R1533 1k :CHIP
R1534 1k :CHIP
A2
A3
A4
A5
A6
A7
R1698 2.7k :RN-CP
R1699 1k :RN-CP
R1701 2.7k :RN-CP
R1700 1k :RN-CP
R1702 1k :RN-CP
R1704 2.7k :RN-CP
R1703 1k :RN-CP
R1705 1k :RN-CP
R1706 1k :RN-CP
Q1501 2SC3668 +5.7V-LIPPLE FILTER
L1501 45µH
R2000 47 :RN-CP
C1501 10 16V
C1502 10 16V
IC1550 (2/2) µPC814G2 SUB-OUT
IC1551 (1/2) µPC814G2 SUB-OUT
IC1551 (2/2) µPC814G2 SUB-OUT
C1503 10 16V
C1504 10 16V
R2001 47 :RN-CP
L1502 45µH
Q1502 2SA1428 -5.7V-RIPPLE FILTER
R1707 2.7k :RN-CP
R1708 1k :RN-CP
IC1549 (2/2) µPC814G2 SUB-OUT
R1710 2.7k :RN-CP
R1709 1k :RN-CP
R1711 1k :RN-CP
IC1549 (1/2) µPC814G2 SUB-OUT
R1713 2.7k :RN-CP
R1712 1k :RN-CP
R1714 1k :RN-CP
IC1550 (1/2) µPC814G2 SUB-OUT
R1715 1k :RN-CP
R1716 15k :RN-CP
⑭
TP1509
R1717 100 :RN-CP
IC1548 (1/2) µPC4558G2 V-OUT
R1719 15k :RN-CP
R1718 1k :RN-CP
G V.OUT
⑮
TP1508
R1720 100 :RN-CP
IC1547 (1/2) µPC4558G2 V-OUT
R1722 15k :RN-CP
R1721 1k :RN-CP
R V.OUT
⑯
TP1510
R1723 100 :RN-CP
IC1548 (2/2) µPC4558G2 V-OUT
R1724 1k :RN-CP
B V.OUT
-5V
D0
D1
D2
D3
D4
D5
D6
D7
C0
C1
WR
CE
H-CEN
H-SKE
H-BOW
H-SIZE
H-LIN
H-KEYS
H-PIN
IC1505 HD74HC138FP ADDRESS-DECODE
IC1506 HD74HC138FP ADDRESS-DECODE
IC1507 HD74HC138FP ADDRESS-DECODE
IC1508 HD74HC138FP ADDRESS-DECODE
IC1509 HD74HC138FP ADDRESS-DECODE
IC1510 HD74HC138FP ADDRESS-DECODE
DB
(ELECTRONIC VR)

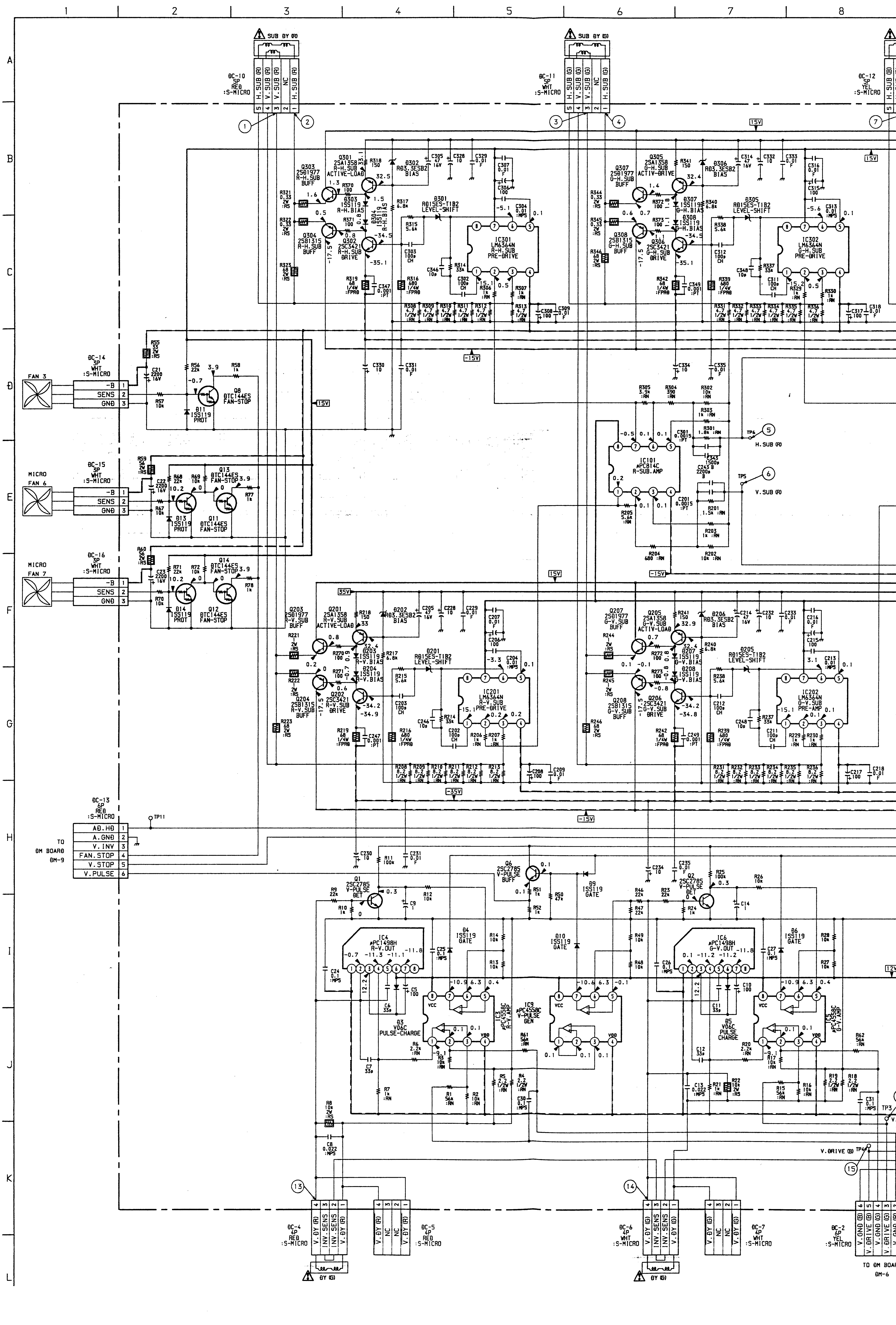

8
9
10
11
12
13
14
15
16
IC1550 (2/2) μPC814G2 SUB-OUT
IC1551 (1/2) μPC814G2 SUB-OUT
IC1551 (2/2) μPC814G2 SUB-OUT
IC1511 MB86023 0G H-CENT-CONT
IC1512 MB86023 0G H-CENT-CONT
IC1513 MB86023 0G H-SKEW-CONT
IC1514 MB86023 0G H-BOW-CONT
IC1515 MB86023 0G H-SIZE-CONT
IC1516 MB86023 0G H-LIN-CONT
IC1517 MB86023 0G H-KEYS-CONT
IC1518 MB86023 0G H-PIN-CONT
IC1519 MB86023 0G V-CENT-CONT
IC1520 MB86023 0G V-CENT-CONT
IC1521 MB86023 0G V-SIZE-CINT
IC1522 MB86023 0G V-LIN-CONT
IC1523 MB86023 0G V-SKEW-CONT
IC1524 MB86023 0G V-BOW-CONT
IC1525 MB86023 0G V-KEYS-CONT
IC1526 MB86023 0G V-PIN-CINT
IC1527 MB86023 0G H-ZONE-CONT
IC1528 MB86023 0G H-ZONE-CONT
IC1529 MB86023 0G H-ZONE-CONT
IC1530 MB86023 0G H-ZONE-CONT
IC1531 MB86023 0G H-ZONE-CONT
IC1532 MB86023 0G H-ZONE-CONT
IC1533 MB86023 0G H-ZONE-CONT
IC1534 MB86023 0G H-ZONE-CONT
IC1535 MB86023 0G V-ZONE-CONT
IC1536 MB86023 0G V-ZONE-CONT
IC1537 MB86023 0G V-ZONE-CONT
IC1538 MB86023 0G V-ZONE-CONT
IC1539 MB86023 0G V-ZONE-CONT
IC1540 MB86023 0G V-CONT-CONT
IC1541 MB86023 0G V-ZONE-CONT
IC1542 MB86023 0G V-ZONE-CONT
IC1543 MB86023 0G USER-CONT
IC1544 MB86023 DRV-CONT
IC1545 MB86023 BKG-CONT
IC1546 MB86023 BLK-CONT
IC1552 TL431CLP +2.5V-REG
C1505 10 16V
5V
-5V
C1506 0.01 F:CHIP → C1575 C1577, 1578 C1580, 1581
+5.7V
D.G
-5.7V
TP1501
B-SS1557<U/C>-0B.

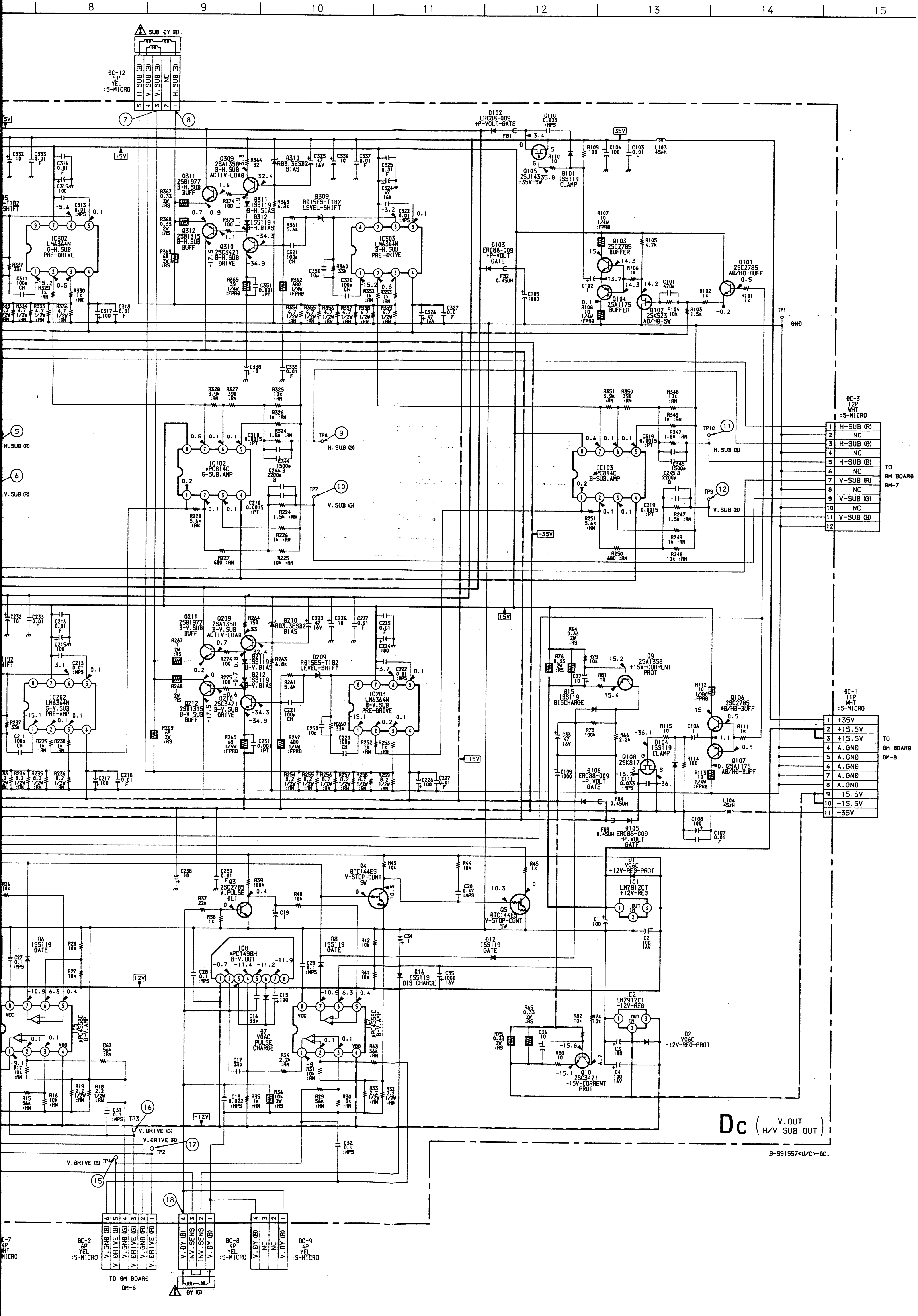
Schematic diagrams

← DB board

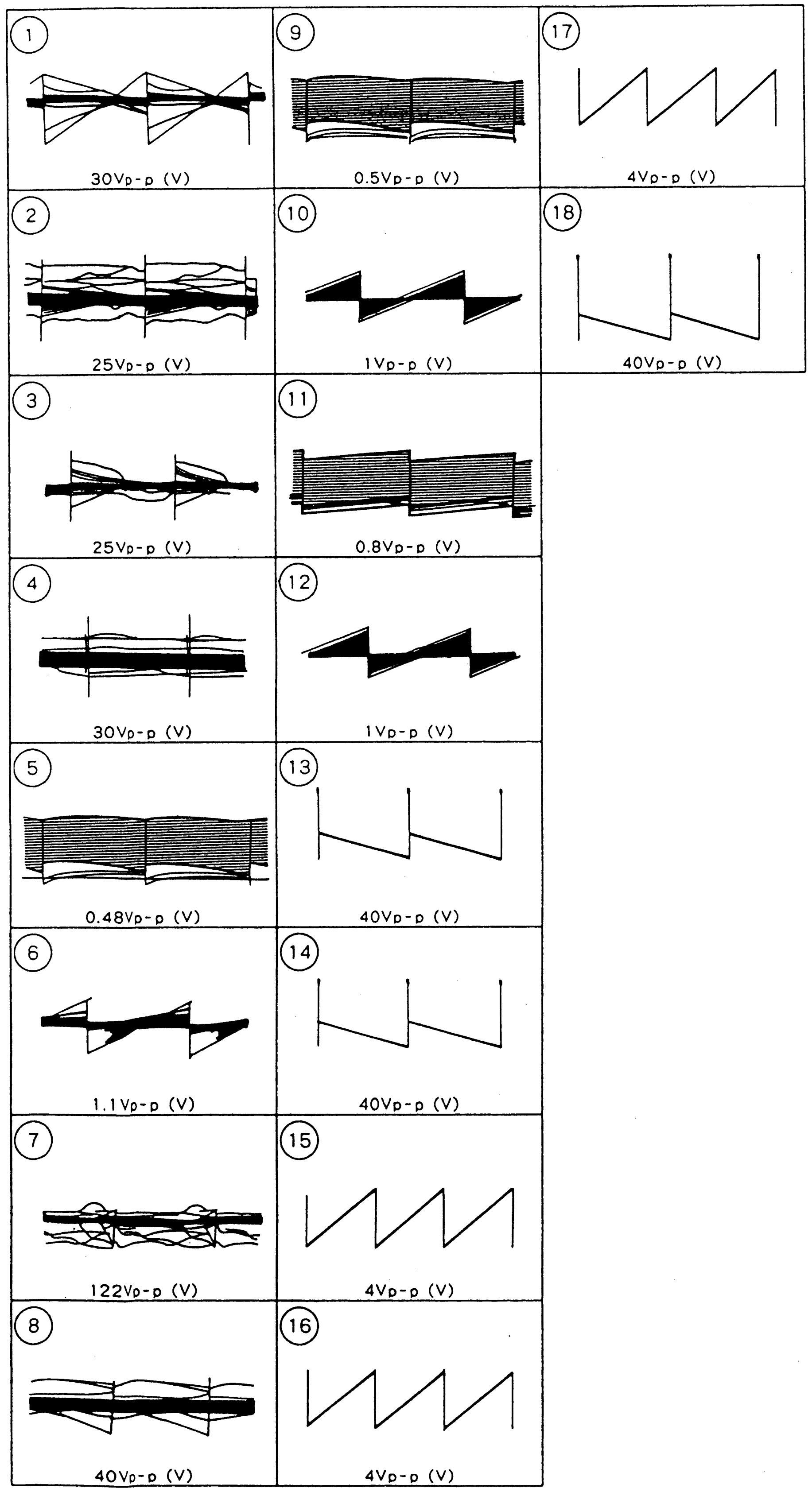
Schematic diagrams

DC board →

SUB DY (R)
SUB DY (G)
CC-10 5P RED :S-MICRO
CC-11 5P WHT :S-MICRO
CC-12 5P YEL :S-MICRO
H.SUB (R)
V.SUB (R)
NC
15V
-15V
35V
-35V
Q301 2SA1358 R-H.SUB ACTIVE-LOAD
Q303 2SD1977 R-H.SUB BUFF
Q304 2SB1315 R-H.SUB BUFF
Q302 2SC3421 R-H.SUB DRIVE
D302 RD3.3ESB2 BIAS
D301 RD15ES-T1B2 LEVEL-SHIFT
IC301 LM6364N R-H.SUB PRE-DRIVE
Q305 2SA1358 G-H.SUB ACTIVE-DRIVE
Q307 2SD1977 G-H.SUB BUFF
Q308 2SB1315 G-H.SUB BUFF
Q306 2SC3421 G-H.SUB DRIVE
D306 RD3.3ESB2 BIAS
D305 RD15ES-T1B2 LEVEL-SHIFT
IC302 LM6364N G-H.SUB PRE-DRIVE
CC-14 3P WHT :S-MICRO
FAN 3
-B
SENS
GND
Q8 DTC144ES FAN-STOP
D11 1SS119 PROT
CC-15 3P WHT :S-MICRO
MICRO FAN 6
Q13 DTC144ES FAN-STOP
Q11 DTC144ES FAN-STOP
D13 1SS119 PROT
CC-16 3P WHT :S-MICRO
MICRO FAN 7
Q14 DTC144ES FAN-STOP
Q12 DTC144ES FAN-STOP
D14 1SS119 PROT
IC101 μPC814C R-SUB.AMP
TP6 H.SUB (R)
TP5 V.SUB (R)
Q201 2SA1358 R-V.SUB ACTIVE-LOAD
Q203 2SD1977 R-V.SUB BUFF
Q204 2SB1315 R-V.SUB BUFF
Q202 2SC3421 R-V.SUB DRIVE
D202 RD3.3ESB2 BIAS
D201 RD15ES-T1B2 LEVEL-SHIFT
IC201 LM6364N R-V.SUB PRE-DRIVE
Q205 2SA1358 G-V.SUB ACTIVE-LOAD
Q207 2SD1977 G-V.SUB BUFF
Q208 2SB1315 G-V.SUB BUFF
Q206 2SC3421 G-V.SUB DRIVE
D206 RD3.3ESB2 BIAS
D205 RD15ES-T1B2 LEVEL-SHIFT
IC202 LM6364N G-V.SUB PRE-AMP
CC-13 6P RED :S-MICRO
TP11
TO DM BOARD DM-9
AD.HD
A.GND
V.INV
FAN.STOP
V.STOP
V.PULSE
Q1 2SC2785 V-PULSE DET
Q6 2SC2785 V-PULSE BUFF
D9 1SS119 GATE
Q2 2SC2785 V-PULSE DET
IC4 μPC1498H R-V.OUT
D4 1SS119 GATE
D10 1SS119 GATE
IC6 μPC1498H G-V.OUT
D6 1SS119 GATE
D3 V06C PULSE-CHARGE
IC3 μPC4558C R-V.AMP
IC9 μPC4558C V-PULSE GEN
D5 V06C PULSE CHARGE
IC5 μPC4558C G-V.AMP
12V
TP3
V.DRIVE (B) TP4
CC-4 4P RED :S-MICRO
V.DY (R)
INV.SENS
CC-5 4P RED :S-MICRO
CC-6 4P WHT :S-MICRO
V.DY (G)
CC-7 4P WHT :S-MICRO
CC-2 6P YEL :S-MICRO
V.GND (B)
V.DRIVE (B)
TO DM BOARD DM-6
DY (R)
DY (G)


8
9
10
11
12
13
14
15
SUB DY (B)
BC-12 5P YEL :S-MICRO
H.SUB (B)
V.SUB (B)
V.SUB (B)
NC
H.SUB (B)
D102 ERC88-009 +P-VOLT-GATE
C110 0.033 :MPS
35V
15V
Q309 2SA1358 B-H.SUB ACTIV-LOAD
Q311 2SD1977 B-H.SUB BUFF
Q312 2SB1315 B-H.SUB BUFF
Q310 2SC3421 B-H.SUB DRIVE
D310 RB3.3ESB2 BIAS
D311 1SS119 B-H.BIAS
D312 1SS119 B-H.BIAS
D309 RD15ES-T1B2 LEVEL-SHIFT
IC302 LM6364N G-H.SUB PRE-DRIVE
IC303 LM6364N B-H.SUB PRE-DRIVE
Q105 2SJ143 +35V-SW
D101 1SS119 CLAMP
D103 ERC88-009 +P-VOLT GATE
Q103 2SC2785 BUFFER
Q104 2SA1175 BUFFER
Q102 2SK523 AB/HD-SW
Q101 2SC2785 AB/HD-BUFF
TP1
GND
IC102 μPC814C G-SUB.AMP
IC103 μPC814C B-SUB.AMP
TP8
H.SUB (G)
TP7
V.SUB (G)
TP10
H.SUB (B)
TP9
V.SUB (B)
H.SUB (R)
V.SUB (R)
-35V
BC-3 12P WHT :S-MICRO
1 H-SUB (R)
2 NC
3 H-SUB (G)
4 NC
5 H-SUB (B)
6 NC
7 V-SUB (R)
8 NC
9 V-SUB (G)
10 NC
11 V-SUB (B)
12
TO BM BOARD BM-7
Q209 2SA1358 B-V.SUB ACTIV-LOAD
Q211 2SD1977 B-V.SUB BUFF
Q212 2SB1315 B-V.SUB BUFF
Q210 2SC3421 B-V.SUB DRIVE
D210 RB3.3ESB2 BIAS
D211 1SS119 B-V.BIAS
D212 1SS119 B-V.BIAS
D209 RD15ES-T1B2 LEVEL-SHIFT
IC202 LM6364N G-V.SUB PRE-AMP
IC203 LM6364N B-V.SUB PRE-DRIVE
Q9 2SA1358 +15V-CORRENT PROT
D15 1SS119 DISCHARGE
D106 ERC88-009 -P.VOLT GATE
Q108 2SK817 CLAMP
D104 1SS119 CLAMP
Q106 2SC2785 AB/HD-BUFF
Q107 2SA1175 AB/HD-BUFF
D105 ERC88-009 -P.VOLT GATE
BC-1 11P WHT :S-MICRO
1 +35V
2 +15.5V
3 +15.5V
4 A.GND
5 A.GND
6 A.GND
7 A.GND
8 A.GND
9 -15.5V
10 -15.5V
11 -35V
TO BM BOARD BM-8
D1 V06C +12V-REG-PROT
IC1 LM7812CT +12V-REG
Q4 DTC144ES V-STOP-CONT SW
Q5 DTC144ES V-STOP-CONT SW
Q3 2SC2785 V.PULSE DET
IC8 μPC1498H B-V.OUT
D6 1SS119 GATE
D8 1SS119 GATE
D12 1SS119 GATE
D16 1SS119 BIS-CHARGE
D7 V06C PULSE CHARGE
IC5 μPC4558C G-V.AMP
IC7 μPC4558C B-V.AMP
12V
-12V
IC2 LM7912CT -12V-REG
D2 V06C -12V-REG-PROT
Q10 2SC3421 -15V-CORRENT PROT
TP3 V.DRIVE (G)
V.DRIVE (R) TP2
V.DRIVE (B) TP4
BC-2 6P YEL :S-MICRO
V.GND (B)
V.DRIVE (B)
V.GND (G)
V.DRIVE (G)
V.GND (R)
V.DRIVE (R)
TO BM BOARD BM-6
BC-8 4P YEL :S-MICRO
V.DY (B)
INV.SENS
INV.SENS
V.DY (B)
DY (G)
BC-9 4P YEL :S-MICRO
V.DY (G)
NC
V.DY (G)
Dc (V.OUT H/V SUB OUT)
B-SS1557<U/C>-BC.

• DC BOARD WAVEFORMS

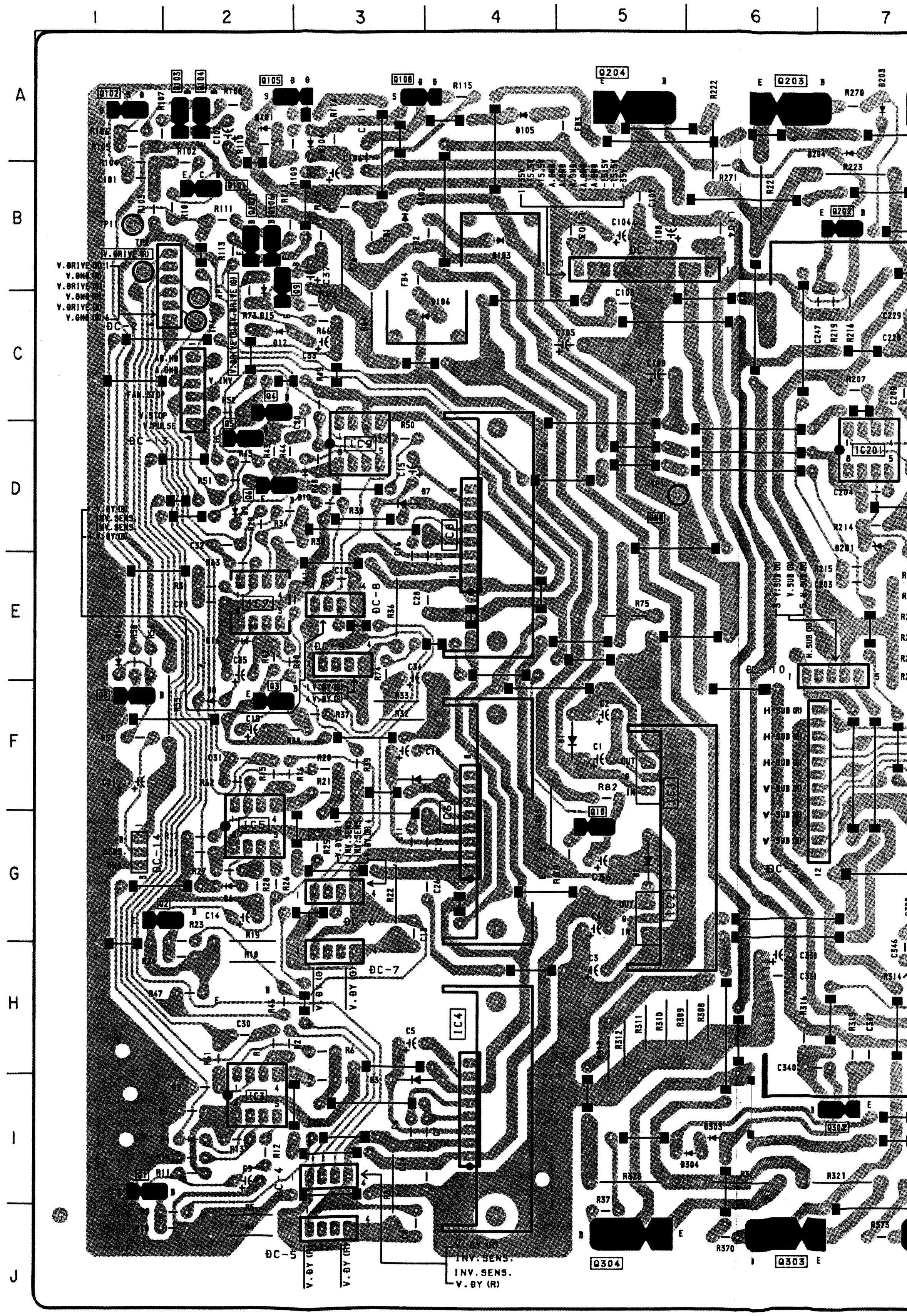


DC BOARD

IC	
IC1	F-5
IC2	G-5
IC3	I-2
IC4	H-4
IC5	G-2
IC6	G-4
IC7	E-2
IC8	D-4
IC9	D-3
IC101	E-8
IC102	E-10
IC103	E-12
IC201	D-7
IC202	D-10
IC203	C-12
IC301	G-8
IC302	G-9
IC303	G-12
TRANSISTOR	
Q1	I-1
Q2	G-1
Q3	F-2
Q4	C-2
Q5	D-2
Q6	D-2
Q8	F-1
Q9	B-2
Q10	G-5
Q11	I-13
Q12	B-13
Q13	G-13
Q14	D-13
Q101	B-2
Q102	A-1
Q103	A-2
Q104	A-2
Q105	A-2
Q106	B-2
Q107	B-2
Q108	A-3
Q201	B-8
Q202	B-7
Q203	A-6
Q204	A-5
Q205	B-10
Q206	B-9
Q207	A-9
Q208	A-8
Q209	B-13
Q210	B-12
Q211	A-11
Q212	A-10
Q301	I-8
Q302	I-7
Q303	J-6
Q304	J-5
Q305	I-10
Q306	I-9
Q307	J-9
Q308	J-7
Q309	I-13
Q310	I-11
Q311	J-11
Q312	J-10
DIODE	
D1	F-5
D2	G-5
D3	I-2
D4	I-2
D5	F-3
D6	G-2
D7	D-3
D8	F-2
D9	D-2
D10	D-3
D11	E-1
D12	C-2
D13	I-13
D14	B-13
D15	C-2
D16	E-2
D101	A-2
D102	B-3
D103	B-4
D104	A-3
D105	A-4
D106	C-4
D201	D-7
D202	C-8
D203	A-7
D204	A-7
D205	B-10
D206	C-11
D207	A-9
D208	A-9
D209	B-12
D210	C-13
D211	B-11
D212	B-11
D301	H-8
D302	H-8
D303	I-6
D304	I-6
D305	H-9
D306	H-10
D307	I-9
D308	I-8
D309	H-12
D310	H-13
D311	I-11
D312	I-10

DC [V.OUT, H/V SUB OUT]

– DC BOARD –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A
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E
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G
H
I
J
Q204
Q203
Q202
IC201
IC4
IC5
IC3
IC8
Q304
Q303
V.DRIVE
V.BY (R)
INV.SENS.
INV.SENS.
V.BY (R)
DC-5
DC-7
DC-8

DC BOARD

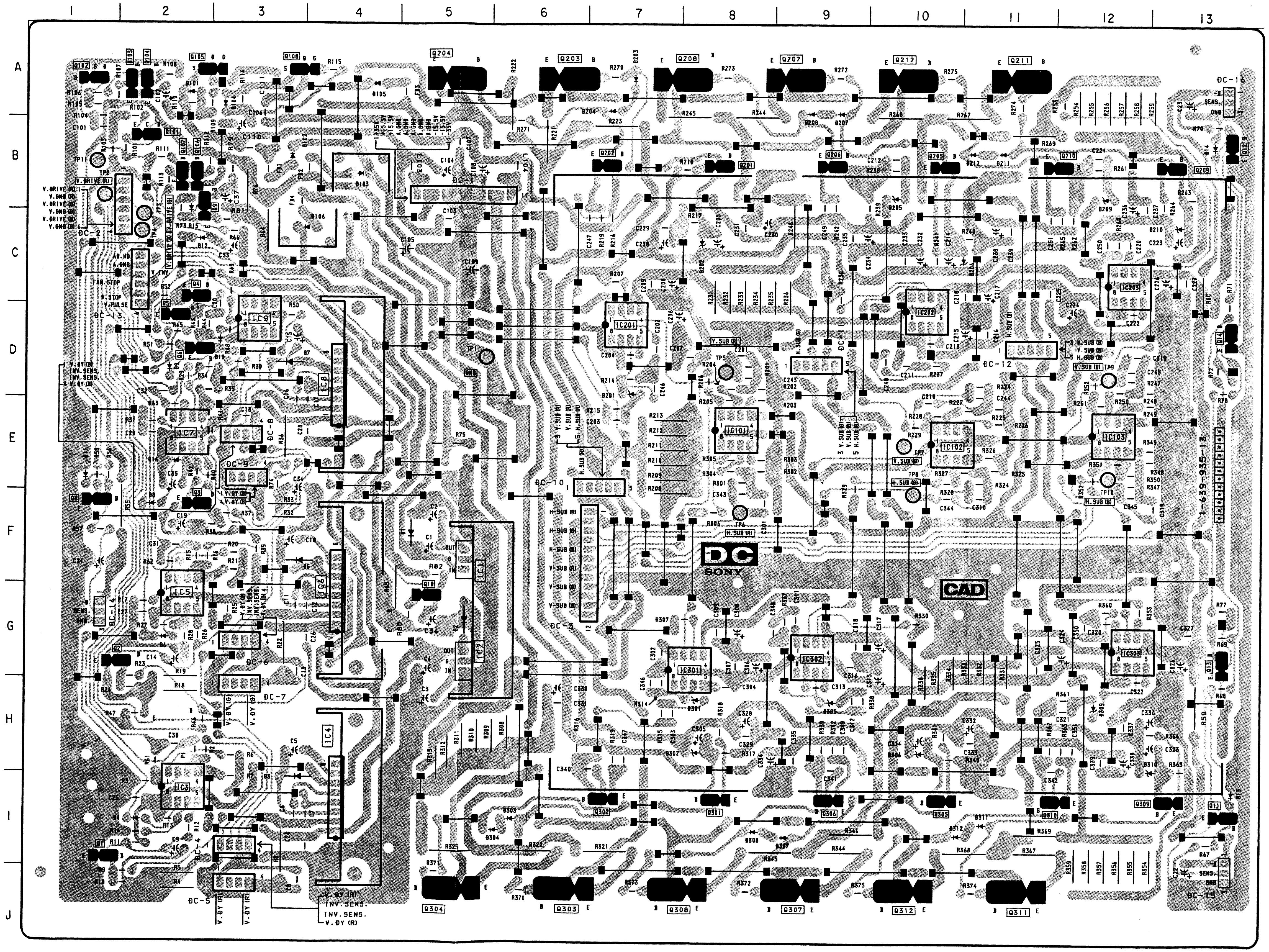
IC	
IC1	F – 5
IC2	G – 5
IC3	I – 2
IC4	H – 4
IC5	G – 2
IC6	G – 4
IC7	E – 2
IC8	D – 4
IC9	D – 3
IC101	E – 8
IC102	E – 10
IC103	E – 12
IC201	D – 7
IC202	D – 10
IC203	C – 12
IC301	G – 8
IC302	G – 9
IC303	G – 12

TRANSISTOR	
Q1	I – 1
Q2	G – 1
Q3	F – 2
Q4	C – 2
Q5	D – 2
Q6	D – 2
Q8	F – 1
Q9	B – 2
Q10	G – 5
Q11	I – 13
Q12	B – 13
Q13	G – 13
Q14	D – 13
Q101	B – 2
Q102	A – 1
Q103	A – 2
Q104	A – 2
Q105	A – 2
Q106	B – 2
Q107	B – 2
Q108	A – 3
Q201	B – 8
Q202	B – 7
Q203	A – 6
Q204	A – 5
Q205	B – 10
Q206	B – 9
Q207	A – 9
Q208	A – 8
Q209	B – 13
Q210	B – 12
Q211	A – 11
Q212	A – 10
Q301	I – 8
Q302	I – 7
Q303	J – 6
Q304	J – 5
Q305	I – 10
Q306	I – 9
Q307	J – 9
Q308	J – 7
Q309	I – 13
Q310	I – 11
Q311	J – 11
Q312	J – 10

DIODE	
D1	F – 5
D2	G – 5
D3	I – 2
D4	I – 2
D5	F – 3
D6	G – 2
D7	D – 3
D8	F – 2
D9	D – 2
D10	D – 3
D11	E – 1
D12	C – 2
D13	I – 13
D14	B – 13
D15	C – 2
D16	E – 2
D101	A – 2
D102	B – 3
D103	B – 4
D104	A – 3
D105	A – 4
D106	C – 4
D201	D – 7
D202	C – 8
D203	A – 7
D204	A – 7
D205	B – 10
D206	C – 11
D207	A – 9
D208	A – 9
D209	B – 12
D210	C – 13
D211	B – 11
D212	B – 11
D301	H – 8
D302	H – 8
D303	I – 6
D304	I – 6
D305	H – 9
D306	H – 10
D307	I – 9
D308	I – 8
D309	H – 12
D310	H – 13
D311	I – 11
D312	I – 10

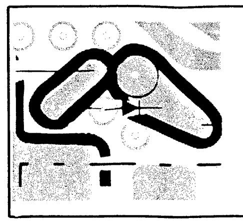
DC [V.OUT, H/V SUB OUT]

- DC BOARD -



E [H . MAIN OUT]

- E BOARD -



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

E BOARD

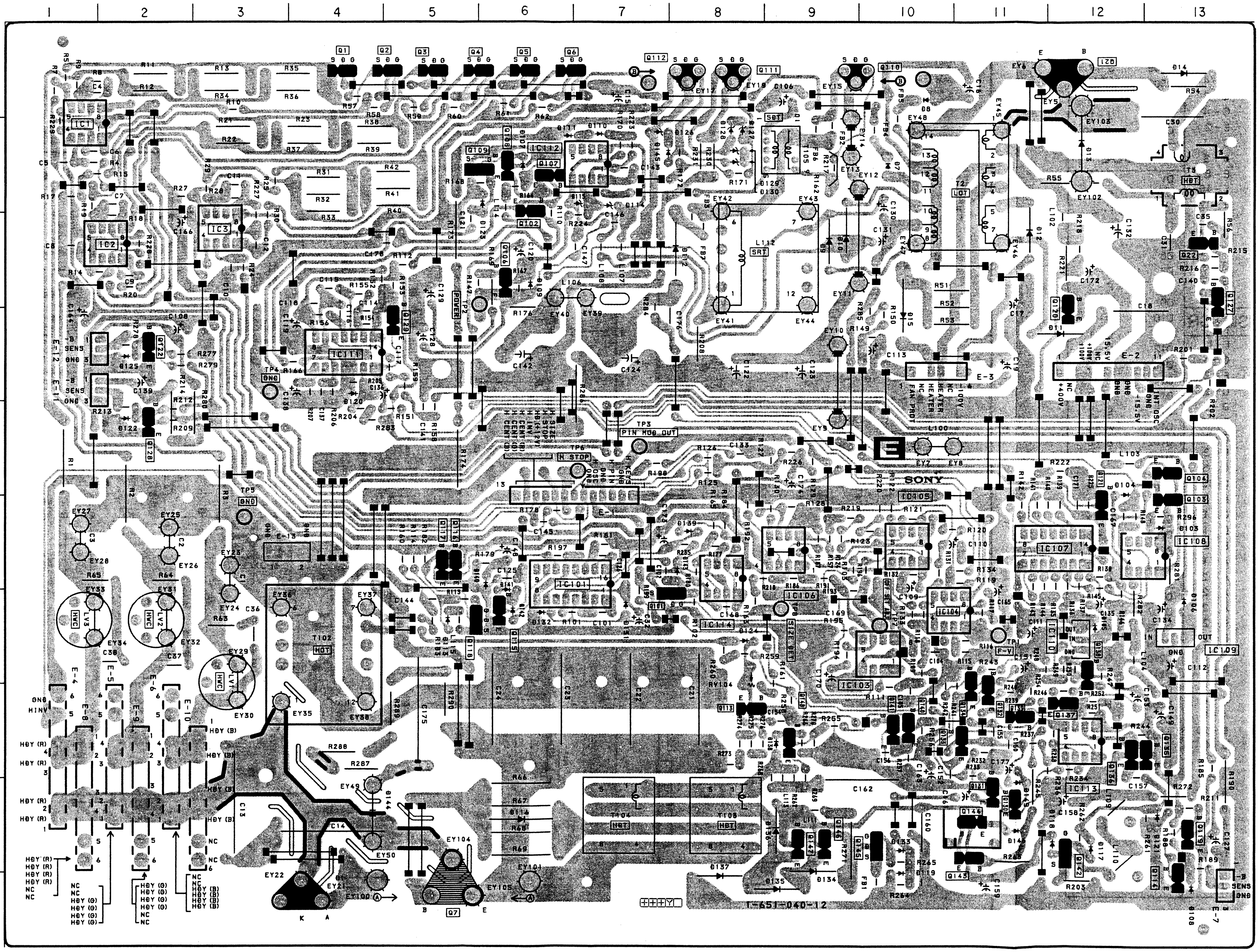
IC	
IC1	B - 1
IC2	C - 2
IC3	C - 3
IC101	F - 6
IC103	G - 10
IC104	G - 10
IC105	F - 10
IC106	F - 9
IC107	F - 12
IC108	F - 13
IC109	G - 13
IC110	G - 12
IC111	D - 4
IC112	B - 7
IC113	H - 12
IC114	G - 8

TRANSISTOR	
Q1	A - 4
Q2	A - 5
Q3	A - 5
Q4	A - 5
Q5	A - 6
Q6	A - 6
Q7	J - 5
Q21	A - 12
Q22	C - 13
Q101	G - 7
Q102	C - 6
Q103	F - 13
Q104	E - 13
Q106	C - 6
Q107	B - 6
Q108	B - 6
Q109	B - 5
Q110	A - 9
Q111	A - 8
Q112	A - 7
Q113	H - 8
Q115	G - 6
Q116	F - 5
Q117	F - 5
Q118	G - 5
Q119	I - 13
Q120	D - 12
Q121	F - 12
Q122	D - 2
Q127	D - 13
Q128	E - 2
Q129	D - 5
Q130	I - 11
Q131	I - 11
Q132	H - 11
Q133	H - 10
Q134	H - 11
Q135	H - 13
Q136	H - 12
Q137	H - 12
Q138	G - 11
Q139	H - 11
Q140	H - 10
Q141	H - 10
Q142	I - 12
Q143	I - 11
Q144	I - 11
Q145	I - 10
Q146	I - 9
Q147	I - 9
Q148	H - 9

DIODE	
D1	J - 4
D7	B - 10
D8	A - 10
D9	C - 9
D10	C - 9
D11	D - 12
D12	C - 11
D13	B - 12
D14	A - 13
D15	D - 10
D103	F - 13
D104	F - 12
D105	G - 12
D106	G - 13
D107	B - 6
D108	J - 13
D109	C - 6
D110	B - 7
D111	B - 6
D112	C - 8
D113	G - 5
D114	B - 7
D115	B - 7
D116	I - 6
D117	I - 11
D118	I - 11
D119	J - 10
D120	D - 4
D121	I - 13
D122	E - 2
D123	B - 6
D124	G - 8
D125	D - 2
D126	B - 7
D127	B - 8
D128	B - 8
D129	B - 8
D130	B - 8
D131	G - 7
D132	G - 6
D133	I - 10
D134	J - 9
D135	J - 9
D136	I - 9
D137	J - 8
D138	H - 9
D139	F - 8
D140	F - 6
D141	G - 6
D142	G - 6
D143	F - 8
D144	I - 5
D145	B - 7
D146	I - 11
D149	I - 11

VARIABLE RESISTOR	
RV104	H - 8

TEST POINT	
TP1	G - 11
TP2	C - 5
TP3	E - 7
TP4	D - 3
TP5	F - 3
TP6	E - 7
TP7	G - 10
TP8	G - 9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A
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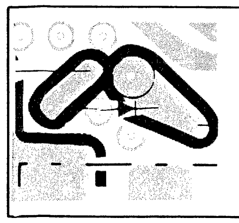
C
D
E
F
G
H
I
J
IC1
IC2
IC3
IC101
IC103
IC104
IC105
IC106
IC107
IC108
IC109
IC110
IC111
IC112
IC113
IC114
Q1
Q2
Q3
Q4
Q5
Q6
Q7
T102
HOT
T104
T105
T5
T2
LOT
SRT
L112
TP1
TP2
TP3
PIN HOO OUT
TP4
TP5
TP6
H STOP
POWER
SONY
E-2
E-3
HWC
LV1
LV2
LV3
EY100
EY101
EY104
EY105
SENS
GND
HOY (R)
HOY (G)
HOY (B)
NC
T-651-040-12

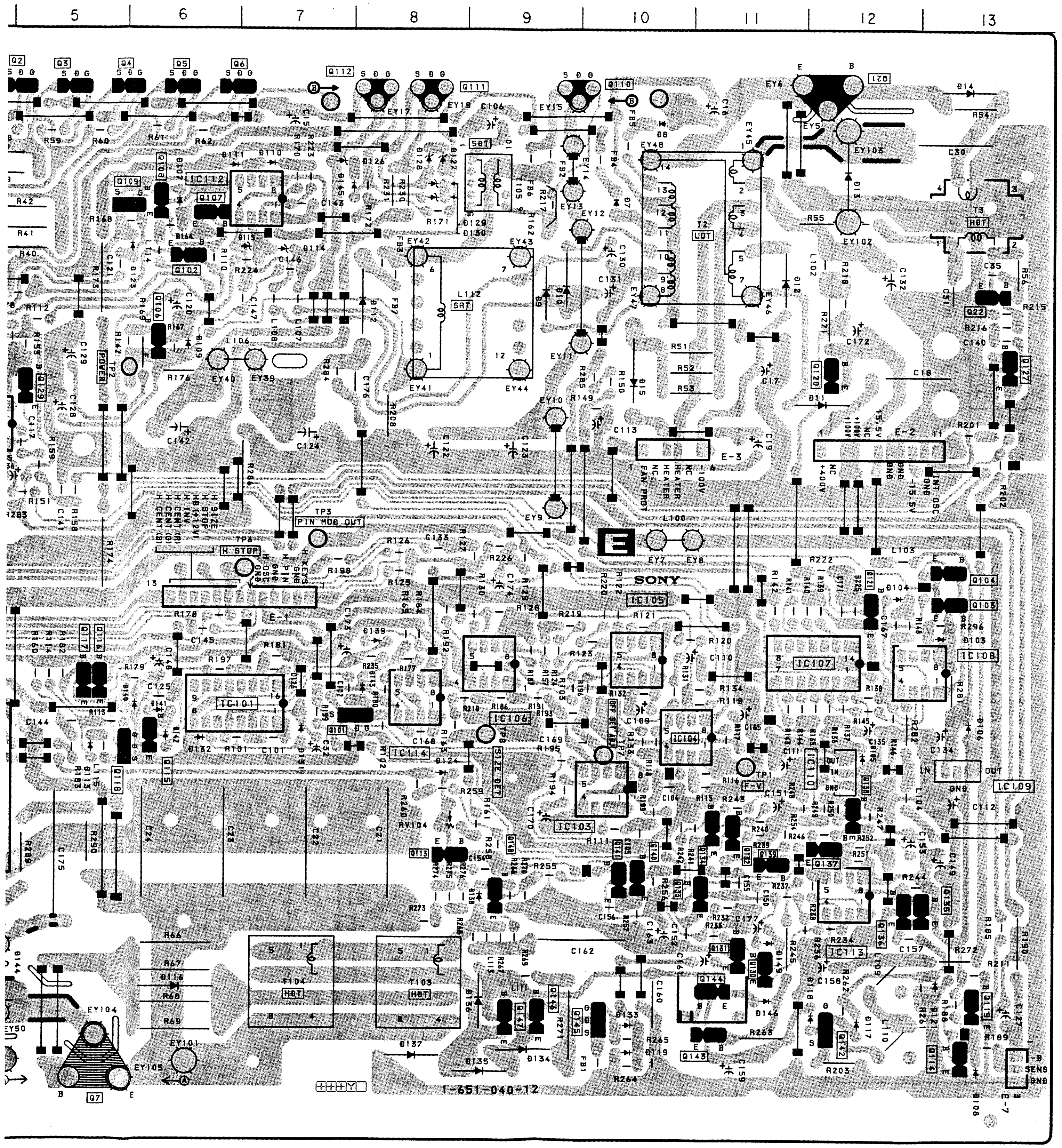
E BOAR

REF.	Pin. No.
IC301	⑦
IC501	①
IC112	①
	②
	③
IC114	②
	⑤

REF.	
Q007	B
	C
	E
Q106	B
	C
	E
Q107	B
	C
	E
Q108	B
	C
	E
Q113	B
	C
	E
Q137	B
	C
	E
Q138	B
	C
	E
Q140	B
	C
	E
Q143	B
	C
	E
Q144	B
	C
	E
Q146	B
	C
	E
Q147	B
	C
	E
Q148	B
	C
	E



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

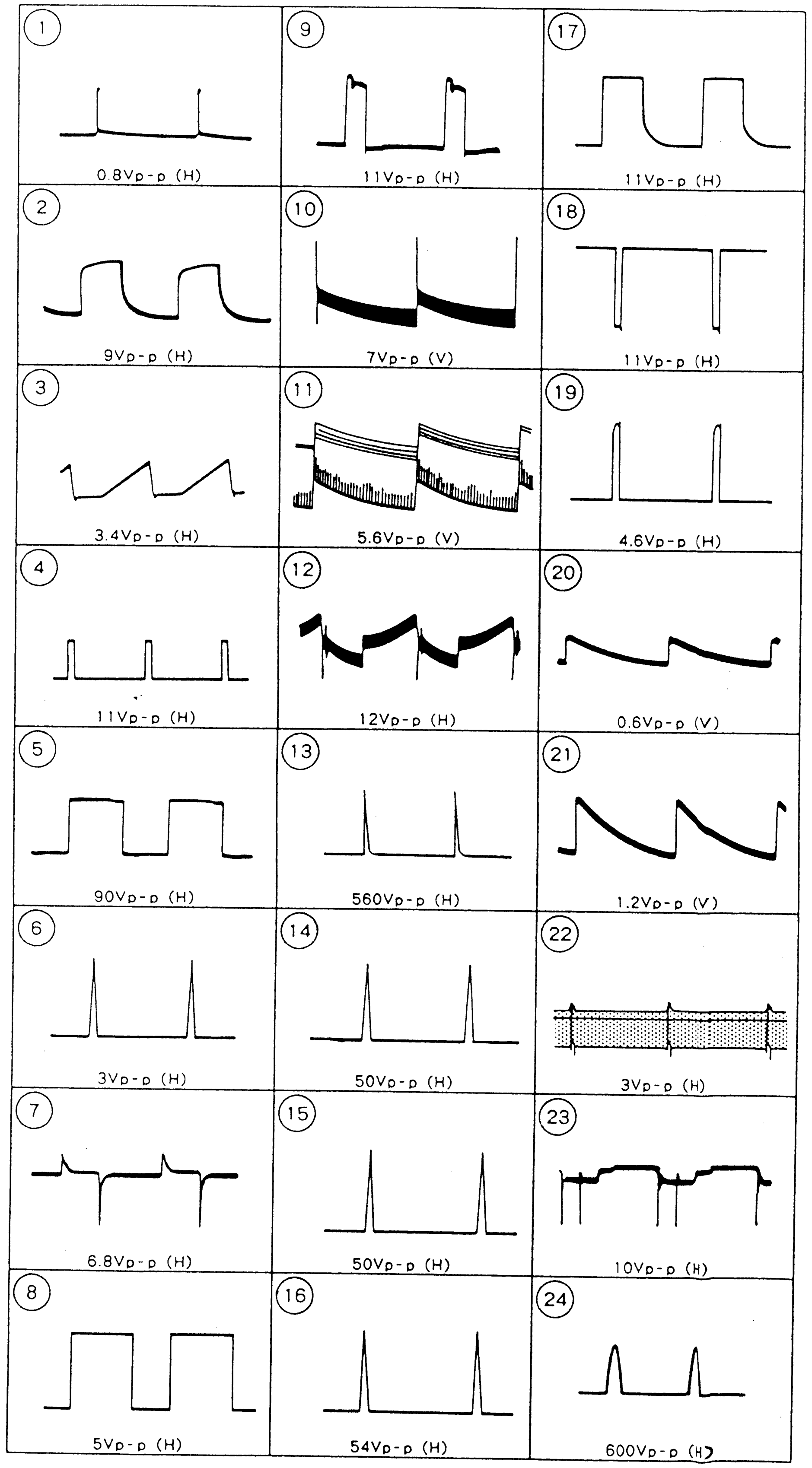


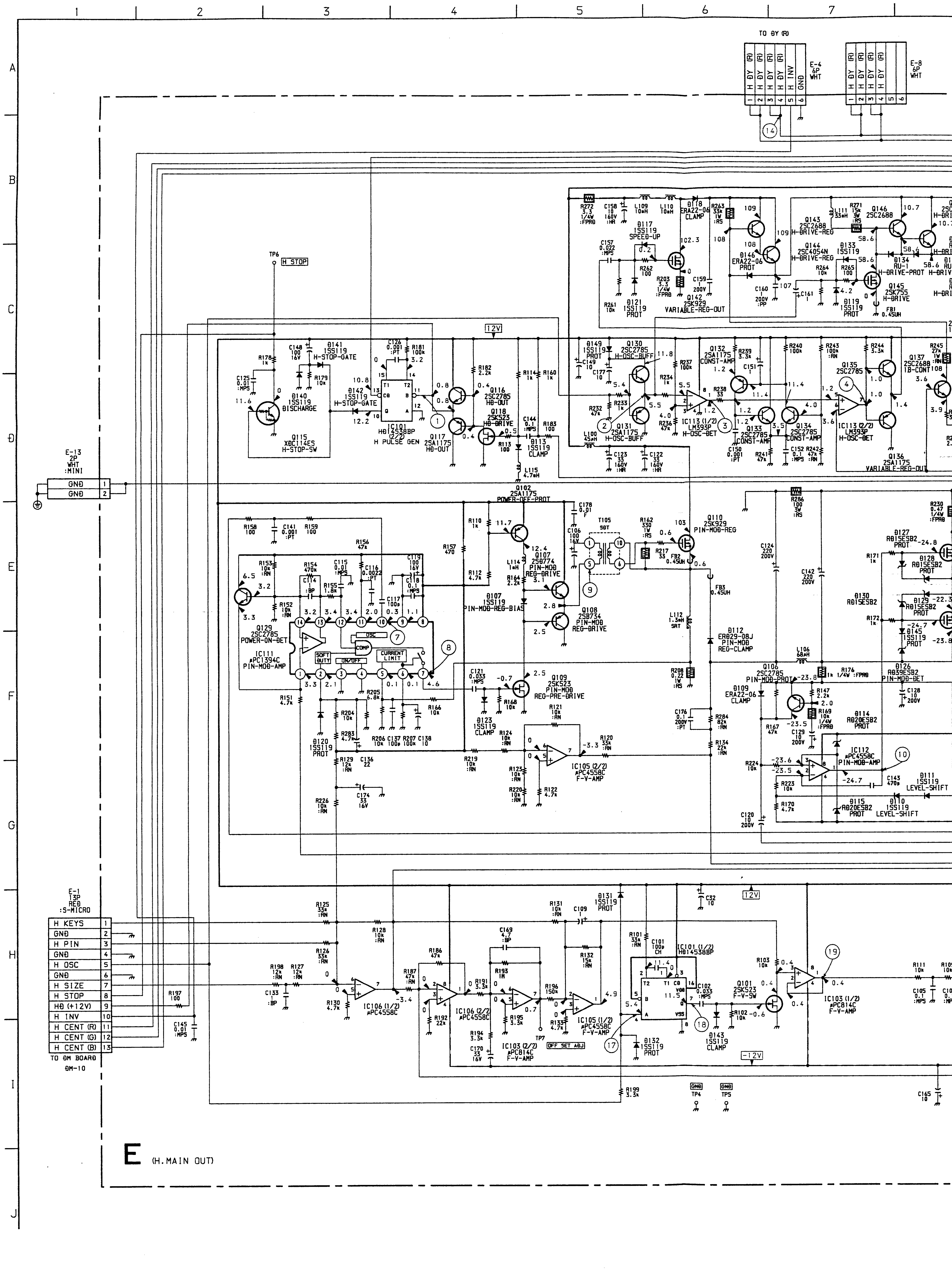
E BOARD

REF.	Pin. No.	PAL
IC301	⑦	1.3
IC501	①	4.9
IC112	①	–24.7
	②	–23.5
	③	–23.5
IC114	②	4.7
	⑤	4.7

REF.		WHITE
Q007	B	–21.6
	C	–0.3
	E	–20.8
Q106	B	–23.6
	C	–23.6
	E	–23.5
Q107	B	3.0
	C	–
	E	2.8
Q108	B	2.5
	C	–
	E	2.8
Q113	B	–
	C	12.7
	E	–
Q137	B	3.8
	C	106.3
	E	3
Q138	B	11.9
	C	3.5
	E	–
Q140	B	11.9
	C	3.5
	E	–
Q143	B	–
	C	11.9
	E	–
Q144	B	112
	C	112.5
	E	111.5
Q146	B	111.4
	C	112.5
	E	110.7
Q147	B	63.5
	C	110.3
	E	63.5
Q148	B	62.5
	C	0.4
	E	60.4

• E BOARD WAVEFORMS




1
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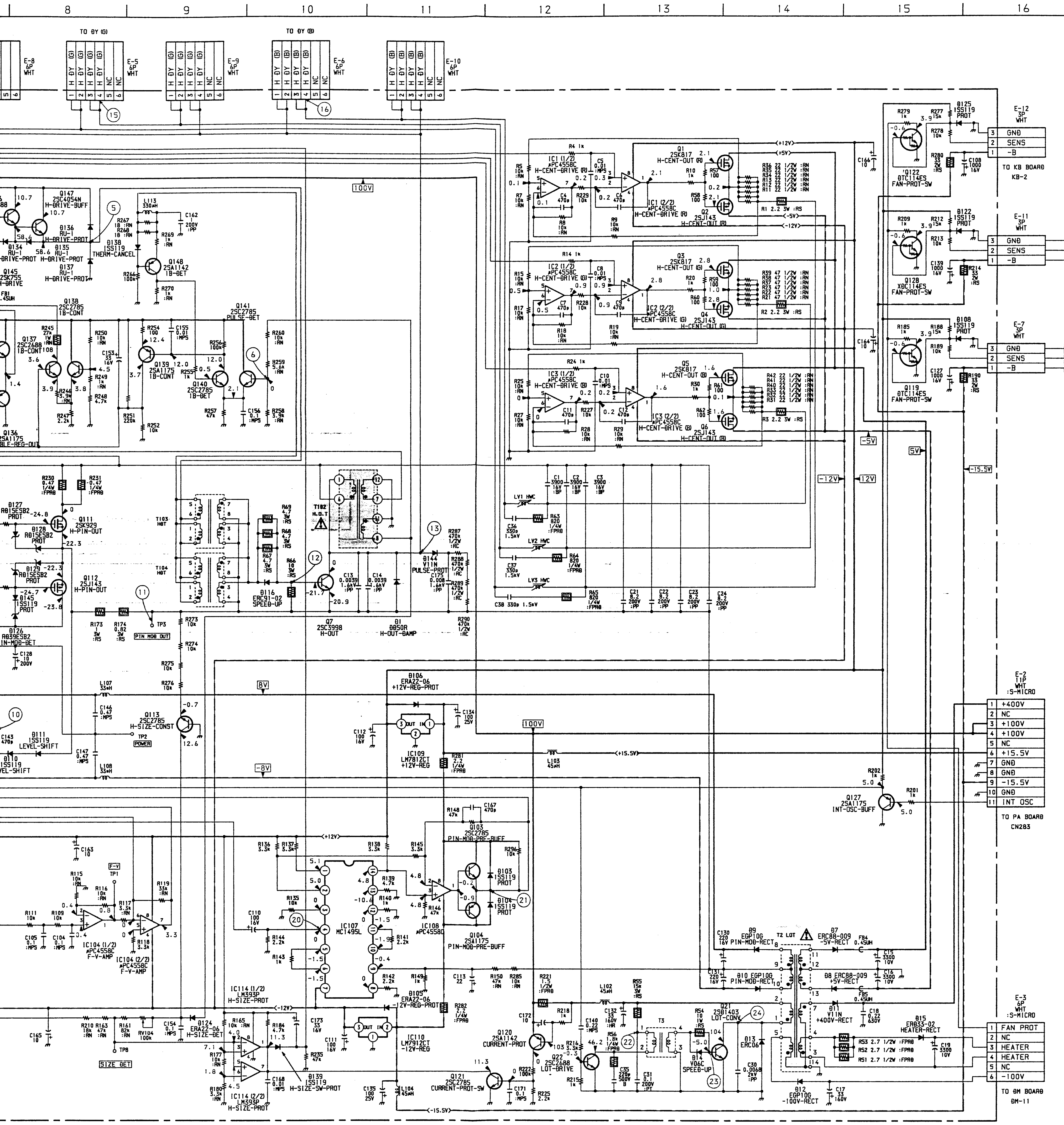
A
B
C
D
E
F
G
H
I
J
TO DY (R)
H DY (R)
H DY (R)
H DY (R)
H DY (R)
H INV
GND
E-4
6P
WHT
E-8
6P
WHT
14
TP6
H STOP
12V
E-13
2P
WHT
:MINI
GND 1
GND 2
Q115
XDC114ES
H-STOP-SW
D140
1SS119
DISCHARGE
D141
1SS119
H-STOP-GATE
D142
1SS119
H-STOP-GATE
IC101
HD14538BP
(2/2)
H PULSE GEN
Q116
2SC2785
HD-OUT
Q117
2SA1175
HD-OUT
Q118
2SK523
HD-DRIVE
D113
1SS119
CLAMP
D149
1SS119
PROT
Q130
2SC2785
H-OSC-BUFF
Q131
2SA1175
H-OSC-BUFF
IC113 (1/2)
LM393P
H-OSC-DET
Q132
2SA1175
CONST-AMP
Q133
2SC2785
CONST-AMP
Q134
2SC2785
CONST-AMP
IC113 (2/2)
LM393P
H-OSC-DET
Q135
2SC2785
Q136
2SA1175
VARIABLE-REG-OUT
Q137
2SC2688
D-CONT
D117
1SS119
SPEED-UP
D118
ERA22-04
CLAMP
Q142
2SK929
VARIABLE-REG-OUT
D121
1SS119
PROT
Q146
ERA22-06
PROT
Q143
2SC2688
H-DRIVE-REG
Q144
2SC4054N
H-DRIVE-REG
D133
1SS119
D134
RU-1
H-DRIVE-PROT
Q145
2SK755
H-DRIVE
D119
1SS119
PROT
FB1
0.45UH
Q146
2SC2688
Q102
2SA1175
POWER-OFF-PROT
Q107
2SB774
PIN-MOD
REG-DRIVE
D107
1SS119
PIN-MOD-REG-BIAS
Q108
2SB734
PIN-MOD
REG-DRIVE
T105
SDT
Q110
2SK929
PIN-MOD-REG
D112
ERB29-08J
PIN-MOD
REG-CLAMP
Q129
2SC2785
POWER-ON-DET
IC111
μPC1394C
PIN-MOD-AMP
SOFT
DUTY
ON/OFF
OSC
COMP
CURRENT
LIMIT
D120
1SS119
PROT
Q109
2SK523
PIN-MOD
REG-PRE-DRIVE
D123
1SS119
CLAMP
IC105 (2/2)
μPC4558C
F-V-AMP
Q106
2SC2785
PIN-MOD-PROT
D109
ERA22-06
CLAMP
D127
RD15ESB2
PROT
D128
RD15ESB2
PROT
D130
RD15ESB2
D129
RD15ESB2
PROT
D145
1SS119
PROT
D126
RD39ESB2
PIN-MOD-DET
D114
RD20ESB2
PROT
IC112
μPC4558C
PIN-MOD-AMP
D111
1SS119
LEVEL-SHIFT
D115
RD20ESB2
PROT
D110
1SS119
LEVEL-SHIFT
E-1
13P
RED
:S-MICRO
H KEYS 1
GND 2
H PIN 3
GND 4
H OSC 5
GND 6
H SIZE 7
H STOP 8
HD (+12V) 9
H INV 10
H CENT (R) 11
H CENT (G) 12
H CENT (B) 13
TO DM BOARD
DM-10
IC106 (1/2)
μPC4558C
IC106 (2/2)
μPC4558C
IC103 (2/2)
μPC814C
F-V-AMP
TP7
OFF SET ADJ
IC105 (1/2)
μPC4558C
F-V-AMP
D131
1SS119
PROT
D132
1SS119
PROT
IC101 (1/2)
HD14538BP
Q101
2SK523
F-V-SW
D143
1SS119
CLAMP
IC103 (1/2)
μPC814C
F-V-AMP
-12V
GND
TP4
GND
TP5
E
(H.MAIN OUT)

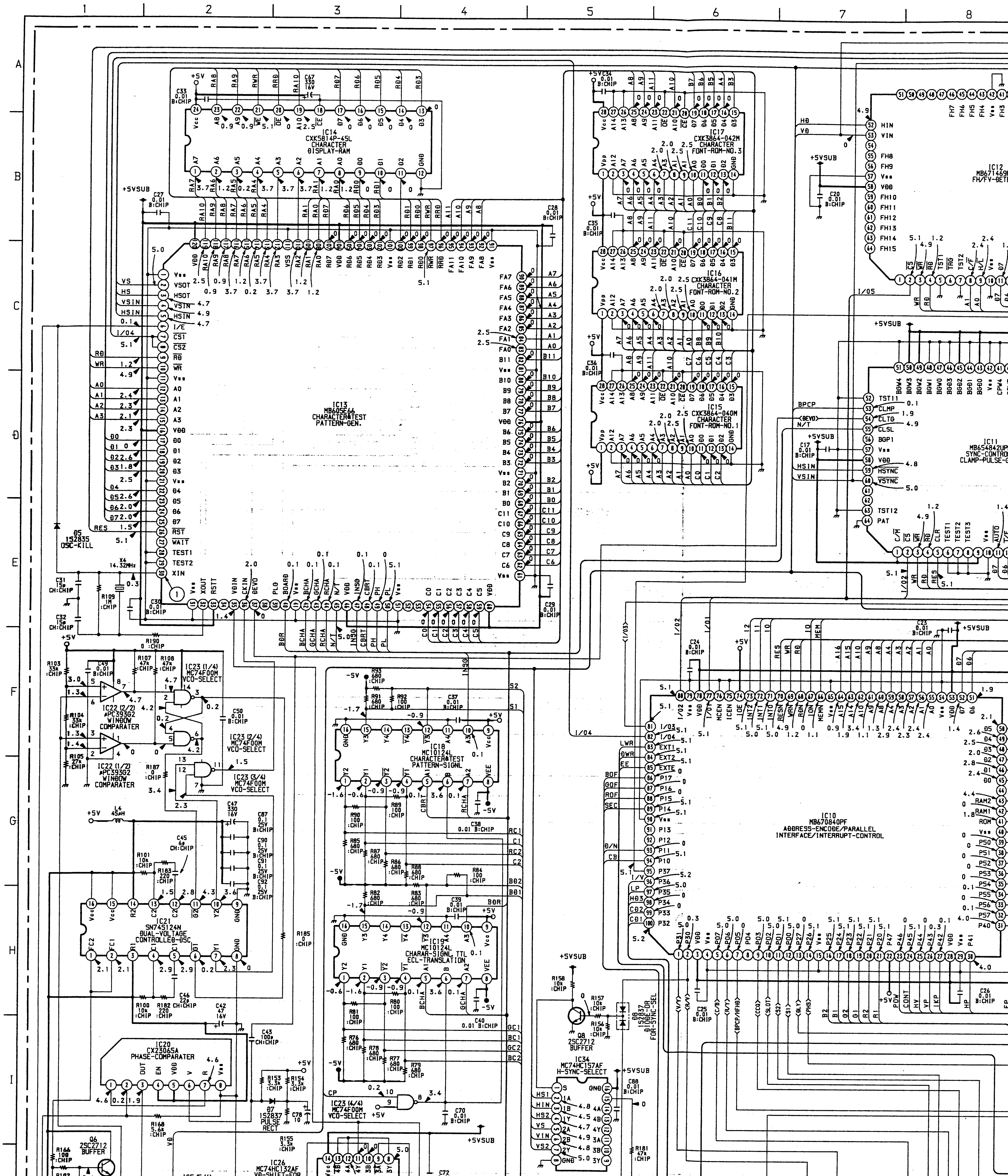

TO DY (G)
TO DY (B)
E-8 6P WHT
E-5 6P WHT
E-9 6P WHT
E-6 6P WHT
E-10 6P WHT
E-12 3P WHT
GND
SENS
-B
TO KB BOARD KB-2
E-11 3P WHT
E-7 3P WHT
Q122 DTC114ES FAN-PROT-SW
Q128 XDC114ES FAN-PROT-SW
Q119 DTC114ES FAN-PROT-SW
IC1 (1/2) μPC4558C H-CENT-DRIVE (R)
Q1 2SK817 H-CENT-OUT (R)
Q2 2SJ143 H-CENT-OUT (R)
IC2 (1/2) μPC4558C H-CENT-DRIVE (G)
Q3 2SK817 H-CENT-OUT (G)
Q4 2SJ143 H-CENT-OUT (G)
IC3 (1/2) μPC4558C H-CENT-DRIVE (B)
Q5 2SK817 H-CENT-OUT (B)
Q6 2SJ143 H-CENT-OUT (B)
100V
Q147 2SC4054N H-DRIVE-BUFF
Q136 RU-1 H-DRIVE-PROT
D138 1SS119 THERM-CANCEL
Q148 2SA1142 IB-DET
Q138 2SC2785 IB-CONT
Q141 2SC2785 PULSE-DET
Q137 2SC2688 IB-CONT
Q139 2SA1175 IB-CONT
Q140 2SC2785 IB-DET
Q111 2SK929 H-PIN-OUT
Q112 2SJ143 H-PIN-OUT
T103 HDT
T104 HDT
T102 H.D.T
D116 ERC91-02 SPEED-UP
Q7 2SC3998 H-OUT
D1 D850R H-OUT-DAMP
D144 V11N PULSE-PROT
LV1 HWC
LV2 HWC
LV3 HWC
-5V
5V
-12V
12V
-15.5V
TP3
PIN MOD OUT
Q113 2SC2785 H-SIZE-CONT
TP2 POWER
8V
-8V
D111 1SS119 LEVEL-SHIFT
D106 ERA22-06 +12V-REG-PROT
IC109 LM7812CT +12V-REG
E-2 11P WHT :S-MICRO
+400V
NC
+100V
+15.5V
-15.5V
INT OSC
TO PA BOARD CN283
Q127 2SA1175 INT-OSC-BUFF
Q103 2SC2785 PIN-MOD-PRE-BUFF
IC107 MC1495L
IC108 μPC4558C
Q104 2SA1175 PIN-MOD-PRE-BUFF
IC104 (1/2) μPC4558C F-V-AMP
IC104 (2/2) μPC4558C F-V-AMP
TP1 F-V
IC114 (1/2) LM393P H-SIZE-PROT
IC114 (2/2) LM393P H-SIZE-PROT
D124 ERA22-06 H-SIZE-DET
TP8 SIZE DET
D139 1SS119 H-SIZE-SW-PROT
IC110 LM7912CT -12V-REG
D105 ERA22-06 -12V-REG-PROT
Q120 2SA1142 CURRENT-PROT
Q121 2SC2785 CURRENT-PROT-SW
Q22 2SC2688 LDT-DRIVE
Q21 2SD1403 LDT-CONV
D14 V06C SPEED-UP
D13 ERC06
T2 LOT
T3
D9 EGP10G PIN-MOD-RECT
D10 EGP10G PIN-MOD-RECT
D7 ERC88-009 -5V-RECT
D8 ERC88-009 +5V-RECT
D11 V11N +400V-RECT
D15 ERB33-02 HEATER-RECT
D12 EGP10G -100V-RECT
E-3 6P WHT :S-MICRO
FAN PROT
HEATER
-100V
TO DM BOARD DM-11
B-SS1557<U/C>-E..

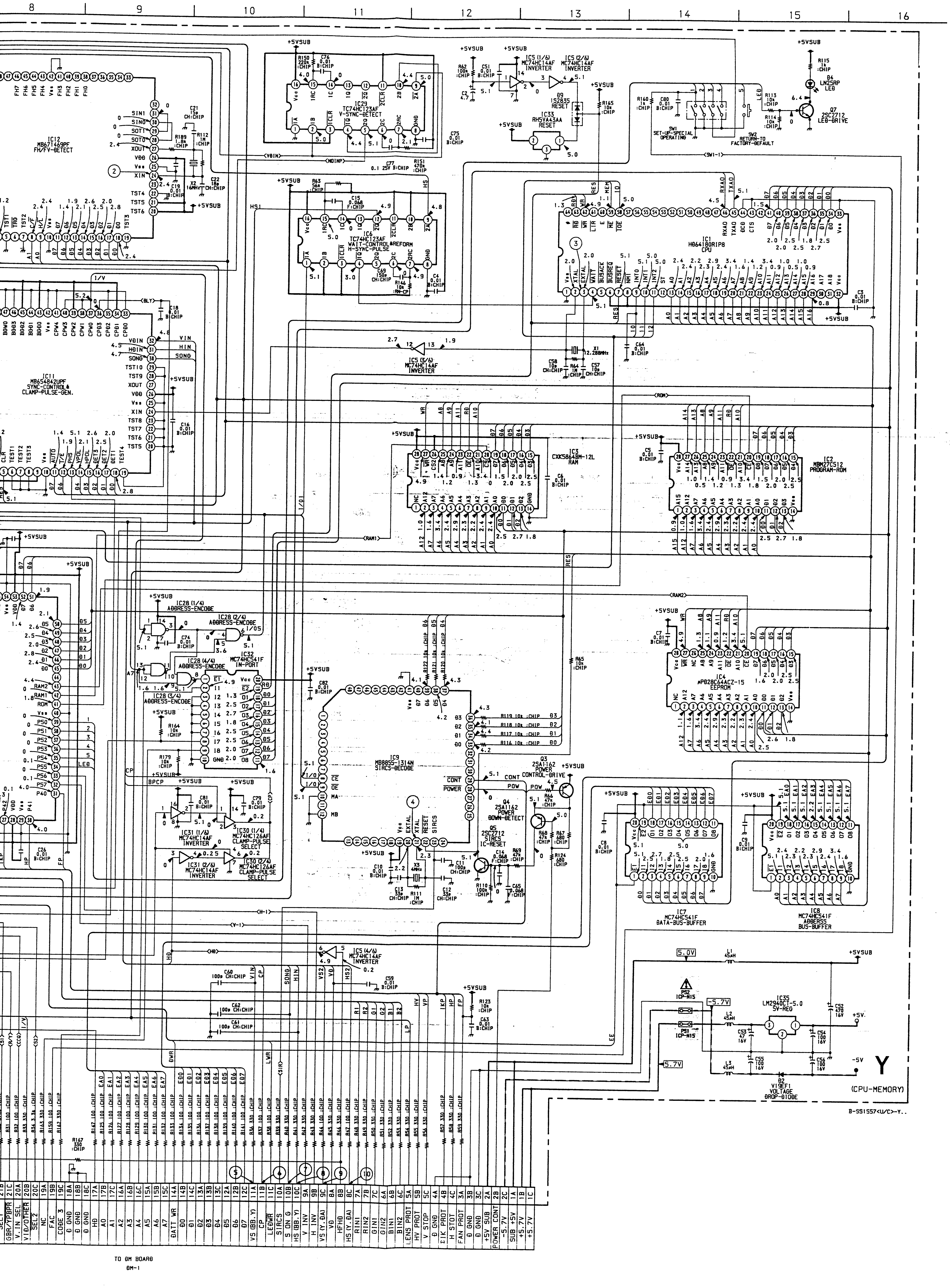
Schematic diagrams

← E board

Schematic dia

Y board

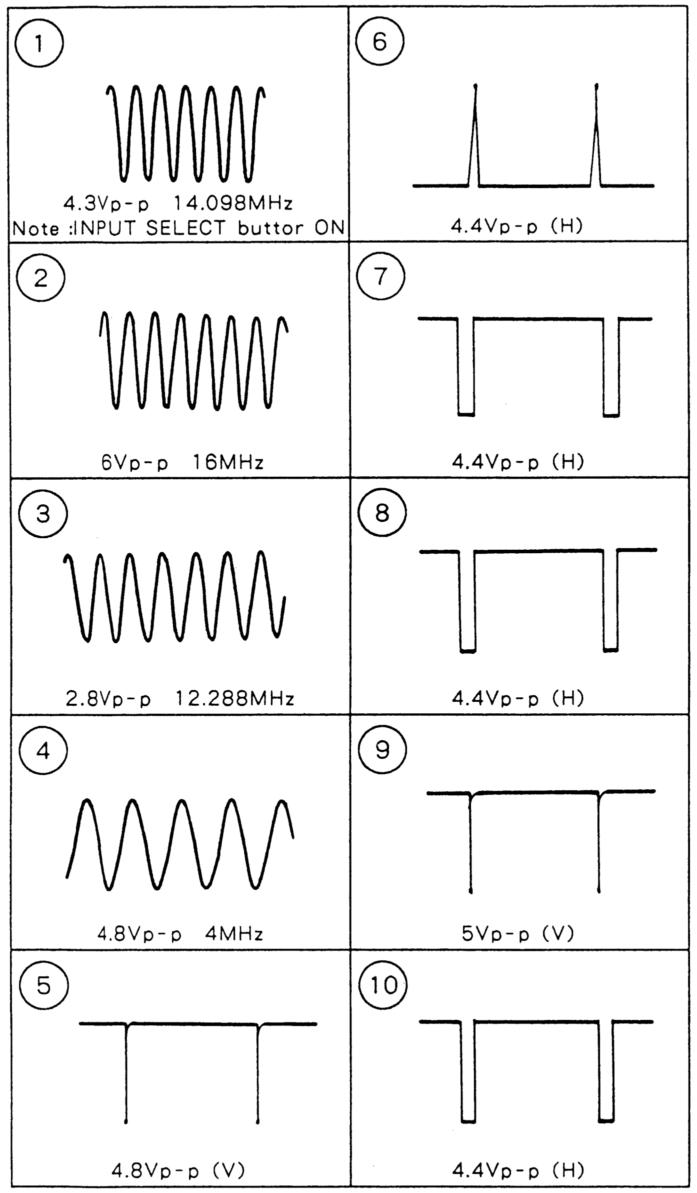

IC14 CXK5814P-45L CHARACTER DISPLAY-RAM
IC13 MB605E66 CHARACTER&TEST PATTERN-GEN.
IC17 CXK3864-042M CHARACTER FONT-ROM-NO.3
IC16 CXK3864-041M CHARACTER FONT-ROM-NO.2
IC15 CXK3864-040M CHARACTER FONT-ROM-NO.1
IC12 MB671469 FH/FV-GET
IC11 MB654842UP SYNC-CONTRO CLAMP-PULSE-G
IC10 MB670840PF ADDRESS-ENCODE/PARALLEL INTERFACE/INTERRUPT-CONTROL
IC22 (2/2) μPC393G2 WINDOW COMPARATER
IC22 (1/2) μPC393G2 WINDOW COMPARATER
IC23 (1/4) MC74F00M VCO-SELECT
IC23 (2/4) MC74F00M VCO-SELECT
IC23 (3/4) MC74F00M VCO-SELECT
IC23 (4/4) MC74F00M VCO-SELECT
IC21 SN74S124N DUAL-VOLTAGE CONTROLLED-OSC
IC20 CX23065A PHASE-COMPARATER
IC18 MC10124L CHARACTER&TEST PATTERN-SIGNL
IC19 MC10124L CHARAR-SIGNL TTL ECL-TRANSLATION
IC26 MC74HC132AF V0-SHIFT-FOR CHARACTER-GEN.
IC27 SN74LC175ANS V0-SHIFT-FOR CHARACTER-GEN
IC5 (5/6) MC74HC14AF INVERTER
IC25 (1/2) μPC814G2 VOLTAGE COMPARATER
IC25 (2/2) μPC814G2 VOLTAGE COMPARATER
IC24 (1/2) MC3405IP RS442-LINE DRIVER/RECIVER
IC24 (2/2) MC3405IP RS442-LINE DRIVER/RECIVER
IC34 MC74HC157AF H-SYNC-SELECT
Q5 1S2835 OSC-KILL
Q6 2SC2712 BUFFER
Q7 1S2837 PULSE RECT
Q8 2SC2712 BUFFER
Q9 2SA1162 BUFFER
D8 1S2837 DIODE-OR FOR-SYNC-SEL
X4 14.32MHz
L4 45μH
+5V
+5VSUB
-5V
BCHA
BCHA
GCHA
BOARDER
BOARDER
GCHR
CBRT
CBRT
RCHA
SG
RCHA
PL
PH
NORM/TEST
TX
TX
DE DET
RX
INT/EXT
RGB/VIDEO (1)
ON/OFF (R)
ON/OFF (G)
VIDEO/YC (2)
DVS/NVS
ON/OFF (B)
CLEAR BLUE
CODE 2
CODE 1
TRI/NOT
COLOR/W&B
SECAM ON
SEL1
GBR/YPBPR
V.IN SEL
VIN/OTHER
SEL2
NC
FAC
32A
32B
32C
31A
31B
31C
30A
30B
29A
29B
29C
28A
28B
28C
27A
27B
27C
26A
26B
26C
25A
25B
25C
24A
24B
24C
23A
23B
23C
22A
22B
22C
21A
21B
21C
20A
20B
20C
19A
19B
Y-1



8
9
10
11
12
13
14
15
16
+5VSUB
IC12
MB671469PF
FH/FV-DETECT
IC29
TC74HC123AF
V-SYNC-DETECT
IC5 (1/6)
MC74HC14AF
INVERTER
IC5 (2/6)
MC74HC14AF
INVERTER
D9
1S2835
RESET
IC33
RH5VA43AA
RESET
D4
LN25RP
LED
Q7
2SC2712
LED-DRIVE
SW1
SET-UP-SPECIAL
OPERATING
SW2
RETURN-TO
FACTORY-DEFAULT
IC6
TC74HC123AF
WAIT-CONTROL&REFORM
H-SYNC-PULSE
IC1
HD64180RIP8
CPU
IC11
MB654842UPF
SYNC-CONTROL&
CLAMP-PULSE-GEN.
IC5 (3/6)
MC74HC14AF
INVERTER
X1
12.288MHz
IC3
CXK5864BM-12L
RAM
IC2
MBM27C512
PROGRAM-ROM
IC28 (1/4)
ADDRESS-ENCODE
IC28 (2/4)
ADDRESS-ENCODE
IC28 (4/4)
ADDRESS-ENCODE
IC28 (3/4)
ADDRESS-ENCODE
IC32
MC74HC541F
IN-PORT
IC4
μPD28C64ACZ-15
EEPROM
IC9
MB8855-1314N
SIRCS-DECODE
Q3
2SA1162
POWER
CONTROL-DRIVE
Q4
2SA1162
POWER
DOWN-DETECT
Q5
2SC2712
SIRCS
IC-RESET
X3
4MHz
IC31 (1/6)
MC74HC14AF
INVERTER
IC31 (2/6)
MC74HC14AF
INVERTER
IC30 (1/4)
MC74HC126AF
CLAMP-PULSE
SELECT
IC30 (2/4)
MC74HC126AF
CLAMP-PULSE
SELECT
IC7
MC74HC541F
DATA-BUS-BUFFER
IC8
MC74HC541F
ADDRSS
BUS-BUFFER
IC5 (4/6)
MC74HC14AF
INVERTER
5.0V
L1
45μH
B+5VSUB
PS2
ICP-N15
PS1
ICP-N15
-5.7V
IC35
LM2940CT-5.0
5V-REG
+5V
-5V
5.7V
D2
V19EF1
VOLTAGE
DROP-DIODE
Y
(CPU-MEMORY)
B-SS1557<U/C>-Y..
TO DM BOARD
DM-1

Y [CPU-MEMORY]

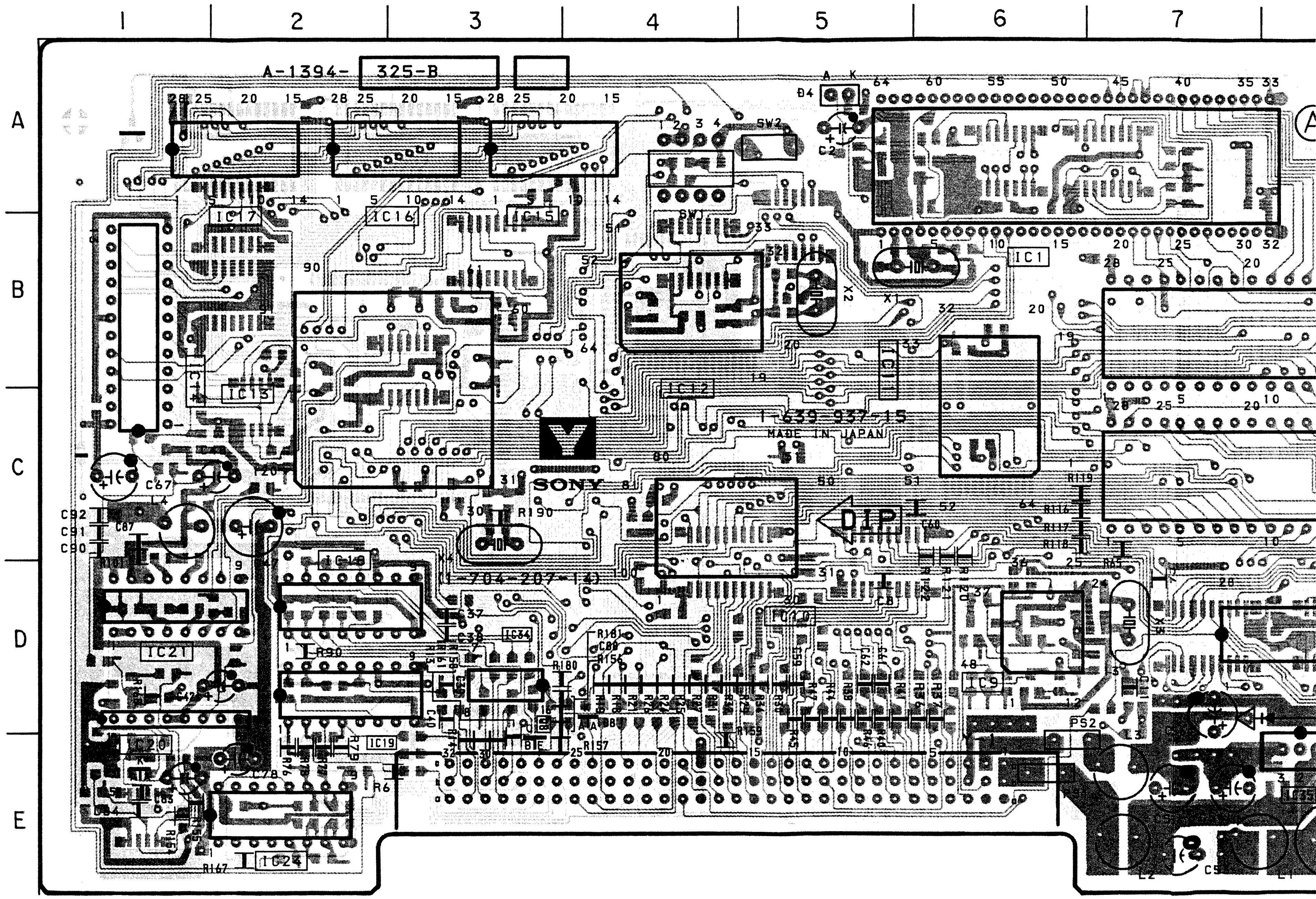
• Y BOARD WAVEFORMS



Y BOARD (COMPONENT SIDE)

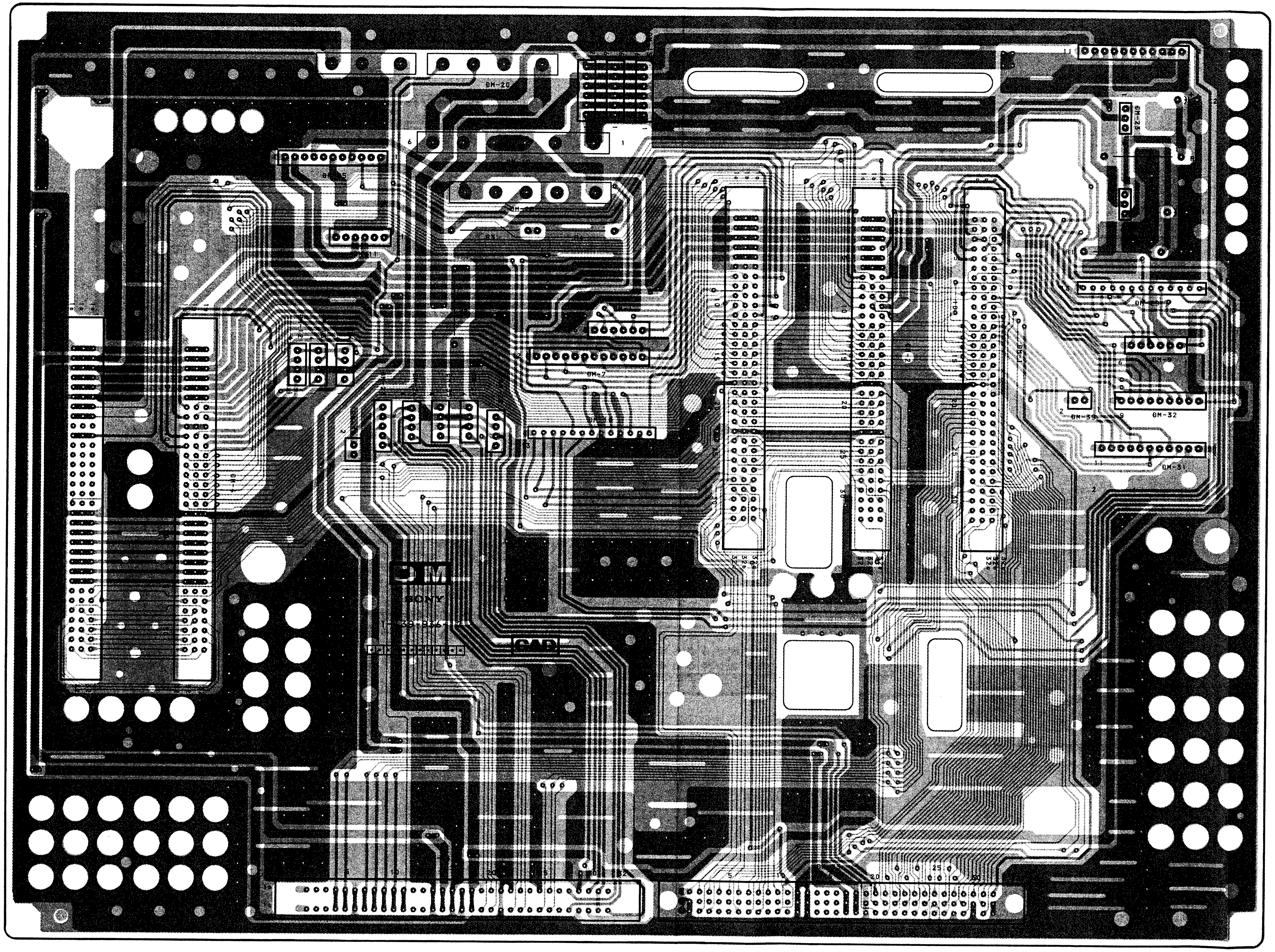
IC	
IC1	A-6
IC2	B-7
IC3	D-8
IC4	C-7
IC9	D-6
IC10	C-4
IC11	C-6
IC12	B-4
IC13	C-2
IC14	B-1
IC15	A-3
IC16	A-3
IC17	A-2
IC18	D-2
IC19	D-2
IC20	D-1
IC21	D-1
IC24	E-2
IC34	D-3
IC35	E-8
TRANSISTOR	
Q8	E-3
DIODE	
D2	D-8
D4	A-5
D7	E-1
D8	D-4

– Y BOARD – ⟨Component Side⟩


1
2
3
4
5
6
7
A
B
C
D
E
A-1394-325-B
IC17
IC16
IC15
IC14
IC13
IC12
IC11
IC1
IC10
IC18
IC21
IC20
IC19
IC24
IC34
IC9
SW1
SW2
D4
X1
X2
1-639-937-15
MADE IN JAPAN
SONY
DIP
1-704-207-14
C67
C92
C91
C90
R190
R167
PS2
L2
L1

DM [DEFLECTION, MOTHER BOARD]

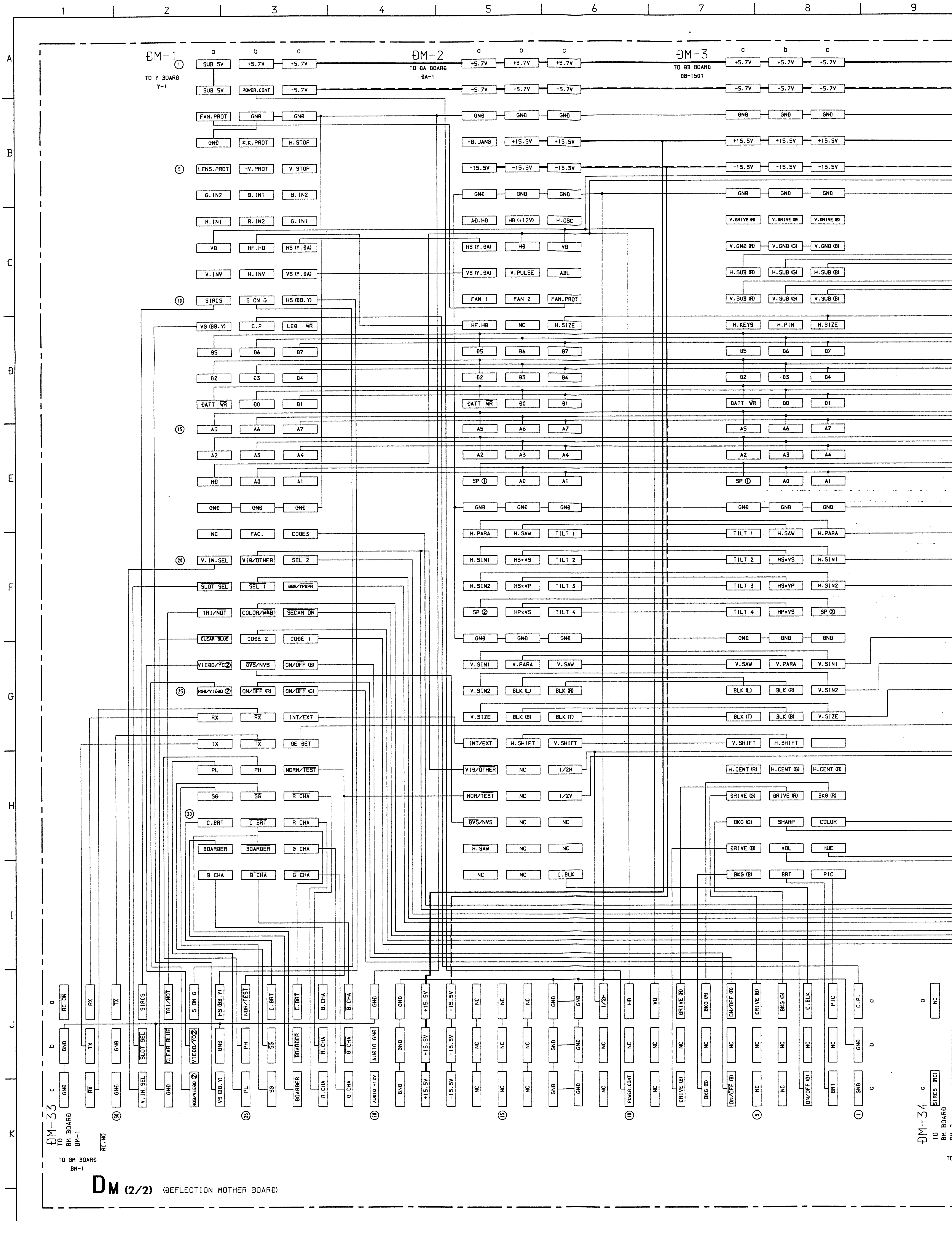
– DM BOARD –


DM-20
DM-7
DM-39
DM-32
DM-31
DM
SONY
CAD

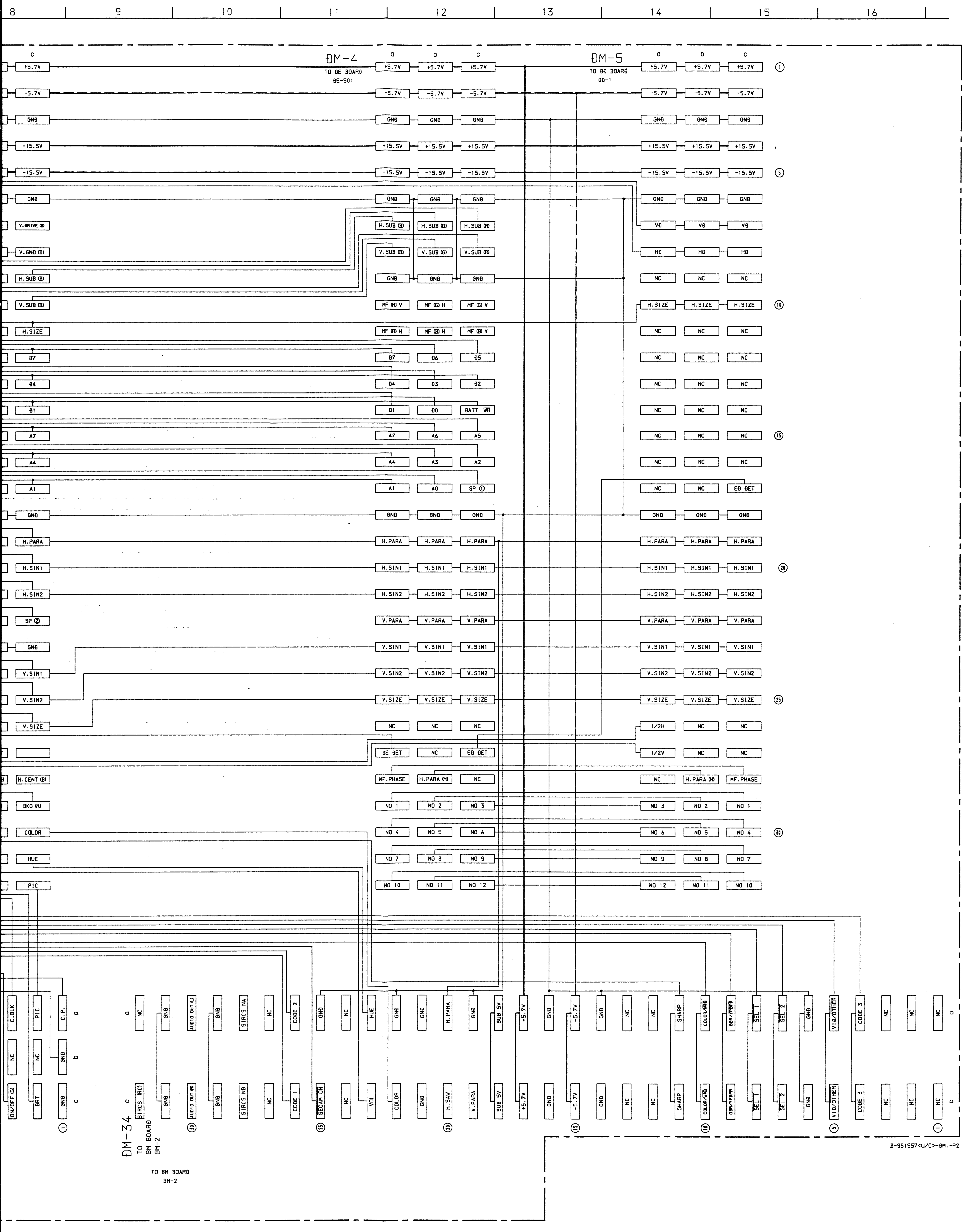
Schematic diagrams

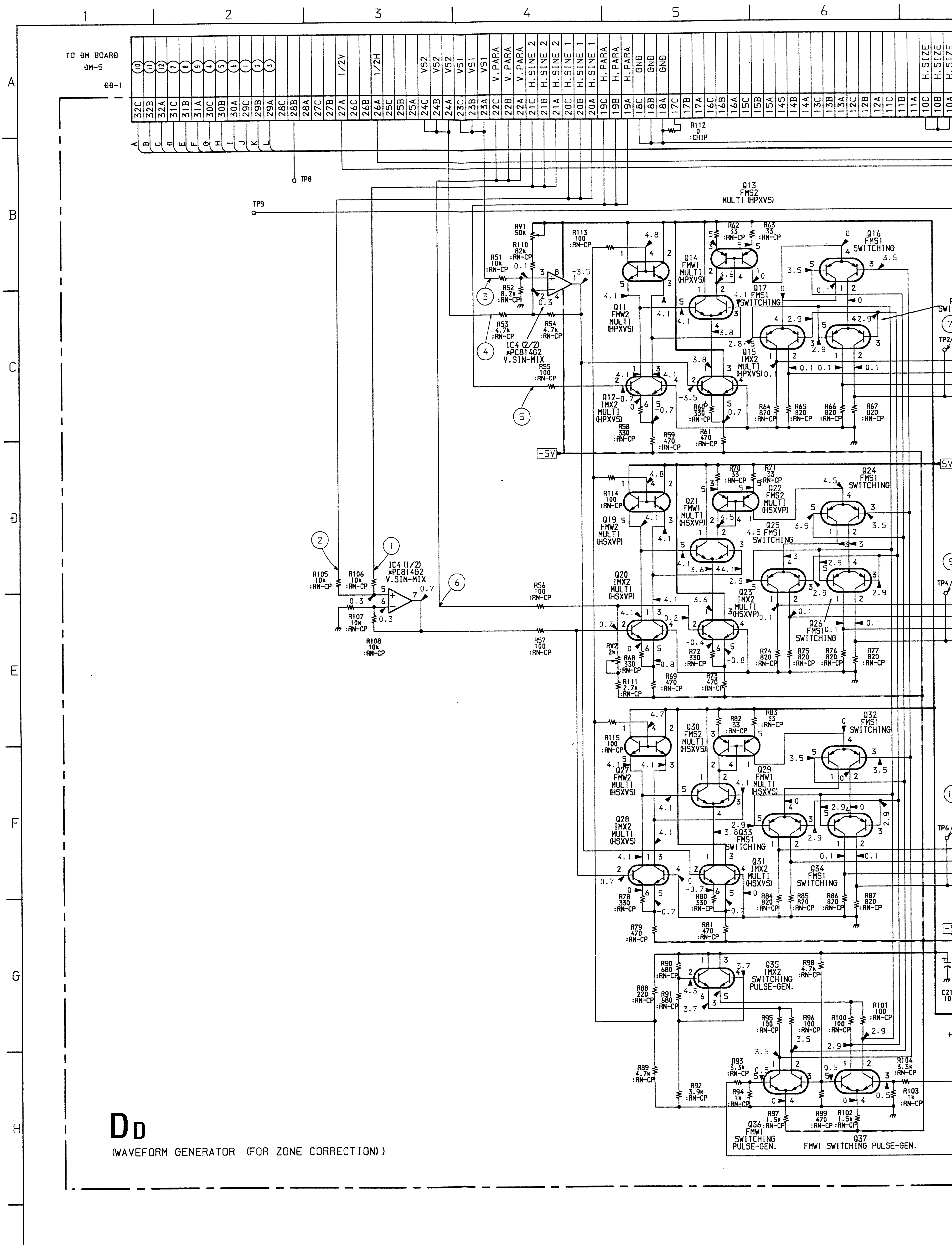
DM (1/2) board ➡

Note :
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
I
J
K
DM-1
TO Y BOARD
Y-1
a
b
c
SUB 5V
+5.7V
+5.7V
SUB 5V
POWER.CONT
-5.7V
FAN.PROT
GND
GND
GND
IK.PROT
H.STOP
LENS.PROT
HV.PROT
V.STOP
G.IN2
B.IN1
B.IN2
R.IN1
R.IN2
G.IN1
VD
HF.HD
HS (Y.DA)
V.INV
H.INV
VS (Y.DA)
SIRCS
S ON G
HS (BB.Y)
VS (BB.Y)
C.P
LED WR
D5
D6
D7
D2
D3
D4
DATT WR
D0
D1
A5
A6
A7
A2
A3
A4
HD
A0
A1
GND
GND
GND
NC
FAC.
CODE3
V.IN.SEL
VID/OTHER
SEL 2
SLOT SEL
SEL 1
GBR/YPBPR
TRI/NOT
COLOR/W&B
SECAM ON
CLEAR BLUE
CODE 2
CODE 1
VIDEO/YC②
DVS/NVS
ON/OFF (B)
RGB/VIDEO ②
ON/OFF (R)
ON/OFF (G)
RX
RX
INT/EXT
TX
TX
DE DET
PL
PH
NORM/TEST
SG
SG
R CHA
C.BRT
C BRT
R CHA
BOARDER
BOARDER
G CHA
B CHA
B CHA
G CHA
①
⑤
⑩
⑮
⑳
㉕
㉚
DM-2
TO DA BOARD
DA-1
+5.7V
-5.7V
GND
+B.JANG
+15.5V
+15.5V
-15.5V
AD.HD
HD (+12V)
H.OSC
HS (Y.DA)
HD
VD
VS (Y.DA)
V.PULSE
ABL
FAN 1
FAN 2
FAN.PROT
HF.HD
NC
H.SIZE
SP ①
H.PARA
H.SAW
TILT 1
H.SIN1
HS×VS
TILT 2
H.SIN2
HS×VP
TILT 3
SP ②
HP×VS
TILT 4
V.SIN1
V.PARA
V.SAW
V.SIN2
BLK (L)
BLK (R)
V.SIZE
BLK (B)
BLK (T)
INT/EXT
H.SHIFT
V.SHIFT
VID/OTHER
1/2H
NOR/TEST
1/2V
DVS/NVS
H.SAW
C.BLK
DM-3
TO DB BOARD
DB-1501
V.DRIVE (R)
V.DRIVE (G)
V.DRIVE (B)
V.GND (R)
V.GND (G)
V.GND (B)
H.SUB (R)
H.SUB (G)
H.SUB (B)
V.SUB (R)
V.SUB (G)
V.SUB (B)
H.KEYS
H.PIN
H.CENT (R)
H.CENT (G)
H.CENT (B)
DRIVE (G)
DRIVE (R)
BKG (R)
BKG (G)
SHARP
COLOR
DRIVE (B)
VOL
HUE
BKG (B)
BRT
PIC
DM-33
TO BM BOARD
BM-1
RC ON
RC.NO
TX
V.IN.SEL
SLOT SEL
VIDEO/YC②
RGB/VIDEO ②
NOR/TEST
AUDIO GND
AUDIO +12V
POWER.CONT
DRIVE (B)
BKG (B)
ON/OFF (B)
DRIVE (G)
BKG (G)
ON/OFF (G)
C.P.
DM-34
TO
BM BOARD
SIRCS (RC)

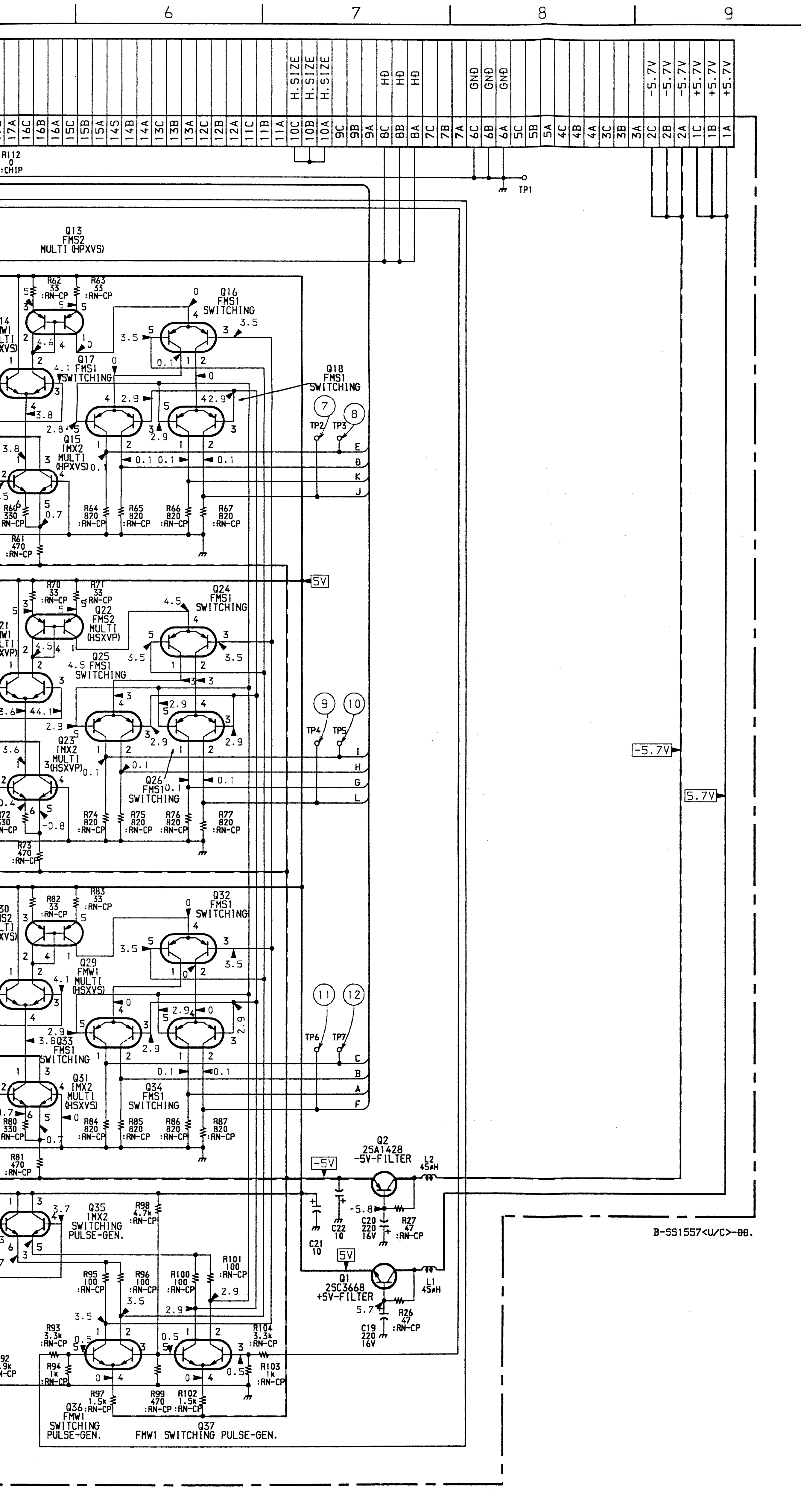
DM (2/2) (DEFLECTION MOTHER BOARD)


8
9
10
11
12
13
14
15
16
DM-4
TO DE BOARD
DE-501
DM-5
TO DD BOARD
DD-1
DM-34
TO BM BOARD
BM-2
TO BM BOARD
BM-2
a
b
c
+5.7V
-5.7V
GND
+15.5V
-15.5V
V.DRIVE (B)
V.GND (B)
H.SUB (B)
V.SUB (B)
H.SIZE
V.SIZE
H.PARA
H.SIN1
H.SIN2
V.PARA
V.SIN1
V.SIN2
H.CENT (B)
BKG (R)
COLOR
HUE
PIC
VD
HD
NC
1/2H
1/2V
ED DET
DE DET
MF.PHASE
BATT WR
SP ①
SP ②
C.BLK
C.P.
ON/OFF (G)
BRT
SIRCS (RC)
AUDIO OUT (L)
AUDIO OUT (R)
SIRCS NA
SIRCS NB
CODE 1
CODE 2
CODE 3
SECAM ON
VOL
H.SAW
SUB 5V
SHARP
COLOR/W/B
DBR/YPBPR
SEL 1
SEL 2
VID/OTHER
①
⑤
⑩
⑮
⑳
㉕
㉚
㉟
B-SS1557<U/C>-DM.-P2

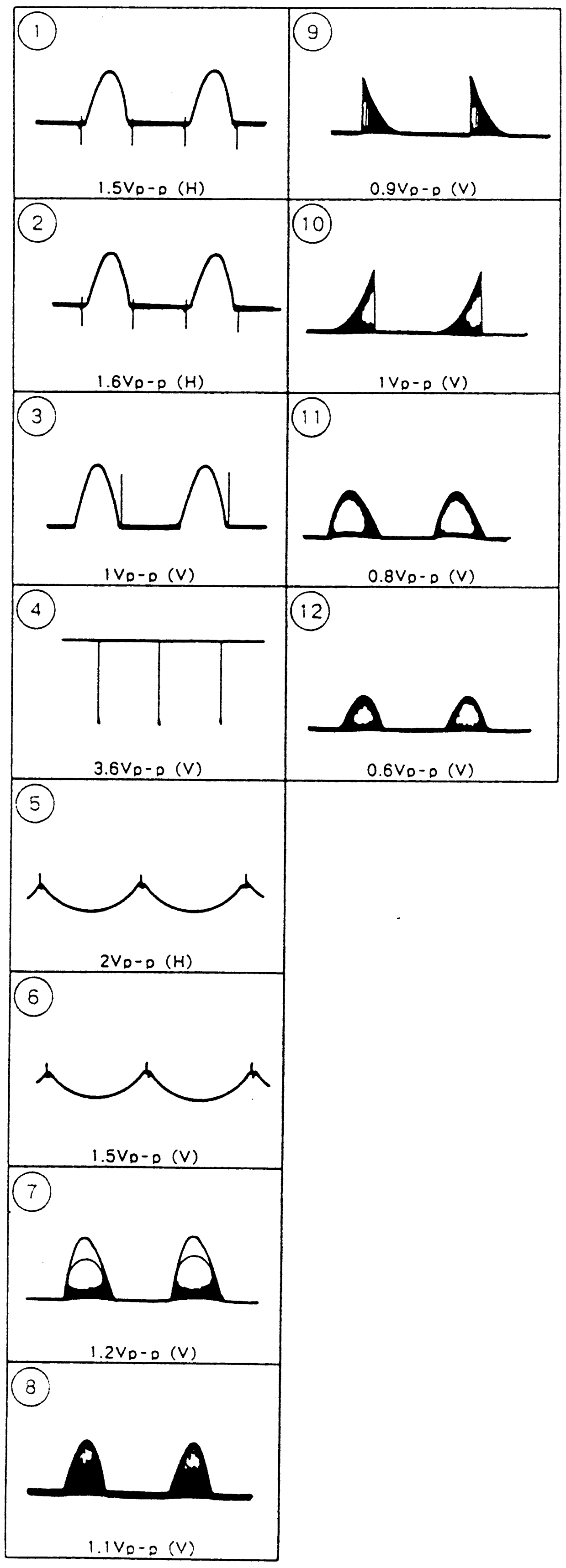

TO ÐM BOARD
ÐM-5
ÐÐ-1
1/2V
1/2H
VS2
VS1
V.PARA
H.SINE 2
H.SINE 1
H.PARA
GND
H.SIZE
R112 0 :CHIP
TP8
TP9
Q13 FMS2 MULTI (HPXVS)
Q14 FMW1 MULTI (HPXVS)
Q11 FMW2 MULTI (HPXVS)
Q12 IMX2 MULTI (HPXVS)
Q15 IMX2 MULTI (HPXVS)
Q16 FMS1 SWITCHING
Q17 FMS1 SWITCHING
RV1 50k
R110 82k :RN-CP
R113 100 :RN-CP
R51 10k :RN-CP
R52 8.2k :RN-CP
R53 4.7k :RN-CP
R54 4.7k :RN-CP
R55 100 :RN-CP
IC4 (2/2) μPC814G2 V.SIN-MIX
-5V
Q19 FMW2 MULTI (HSXVP)
Q21 FMW1 MULTI (HSXVP)
Q22 FMS2 MULTI (HSXVP)
Q20 IMX2 MULTI (HSXVP)
Q23 IMX2 MULTI (HSXVP)
Q24 FMS1 SWITCHING
Q25 FMS1 SWITCHING
Q26 FMS1 SWITCHING
R114 100 :RN-CP
RV2 2k
IC4 (1/2) μPC814G2 V.SIN-MIX
R105 10k :RN-CP
R106 10k :RN-CP
R107 10k :RN-CP
R108 10k :RN-CP
R56 100 :RN-CP
R57 100 :RN-CP
Q27 FMW2 MULTI (HSXVS)
Q28 IMX2 MULTI (HSXVS)
Q29 FMW1 MULTI (HSXVS)
Q30 FMS2 MULTI (HSXVS)
Q31 IMX2 MULTI (HSXVS)
Q32 FMS1 SWITCHING
Q33 FMS1 SWITCHING
Q34 FMS1 SWITCHING
R115 100 :RN-CP
Q35 IMX2 SWITCHING PULSE-GEN.
Q36 FMW1 SWITCHING PULSE-GEN.
Q37 FMW1 SWITCHING PULSE-GEN.
TP2
TP4
TP6

Dd

(WAVEFORM GENERATOR (FOR ZONE CORRECTION))


6
7
8
9
H.SIZE
HD
GND
-5.7V
+5.7V
R112 0 :CHIP
TP1
Q13 FMS2 MULTI (HPXVS)
Q16 FMS1 SWITCHING
Q17 FMS1 SWITCHING
Q18 FMS1 SWITCHING
Q15 IMX2 MULTI (HPXVS)
TP2
TP3
Q22 FMS2 MULTI (HSXVP)
Q24 FMS1 SWITCHING
Q25 FMS1 SWITCHING
Q23 IMX2 MULTI (HSXVP)
Q26 FMS1 SWITCHING
TP4
TP5
5V
-5.7V
5.7V
Q29 FMW1 MULTI (HSXVS)
Q32 FMS1 SWITCHING
Q33 FMS1 SWITCHING
Q31 IMX2 MULTI (HSXVS)
Q34 FMS1 SWITCHING
TP6
TP7
Q2 2SA1428 -5V-FILTER
L2 45μH
-5V
Q1 2SC3668 +5V-FILTER
L1 45μH
5V
Q35 IMX2 SWITCHING PULSE-GEN.
Q36 FMW1 SWITCHING PULSE-GEN.
Q37 FMW1 SWITCHING PULSE-GEN.
B-SS1557<U/C>-00.

• DD BOARD WAVEFORMS

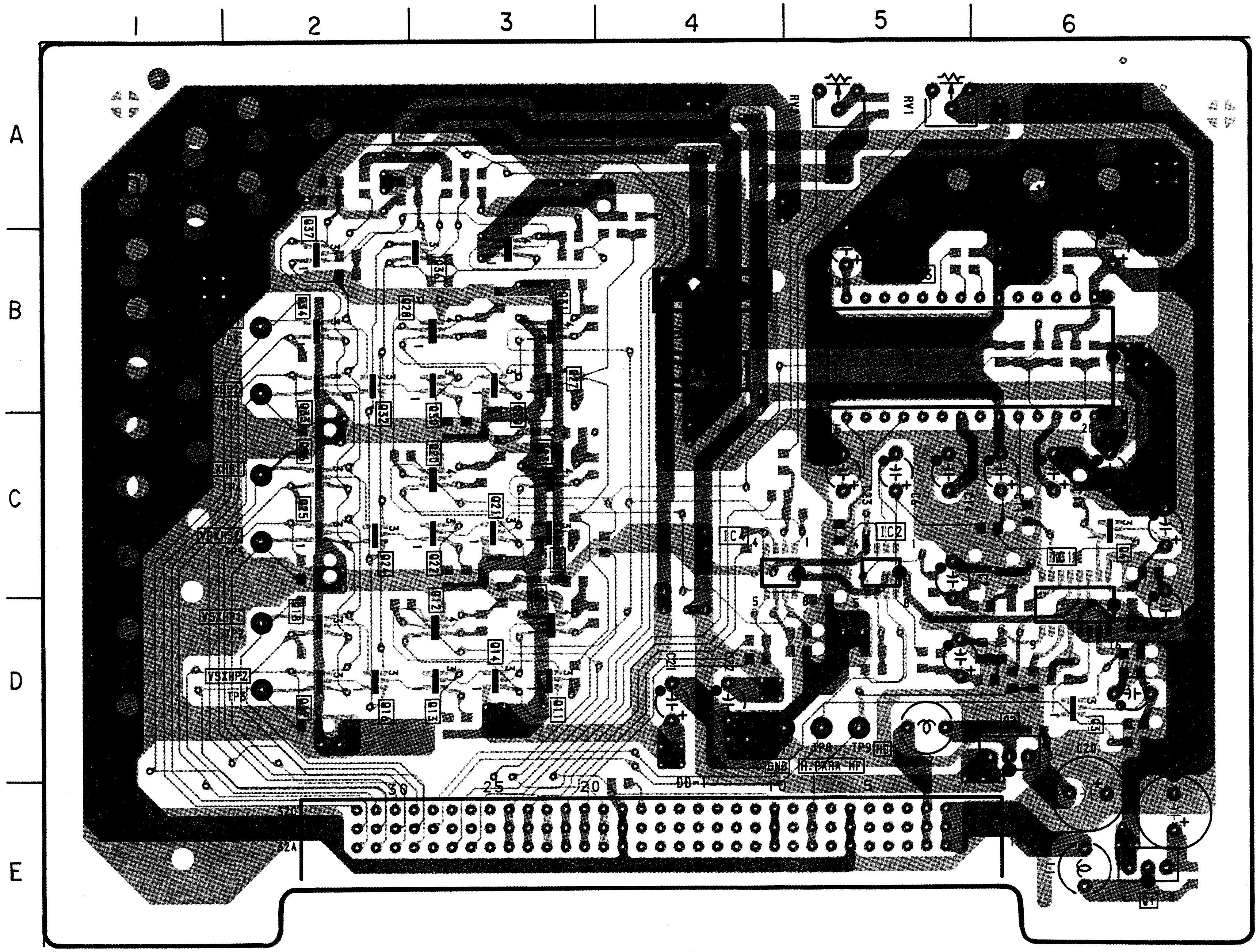


DD [WAVEFORM GENERATOR (FOR ZONE CORRECTION)]

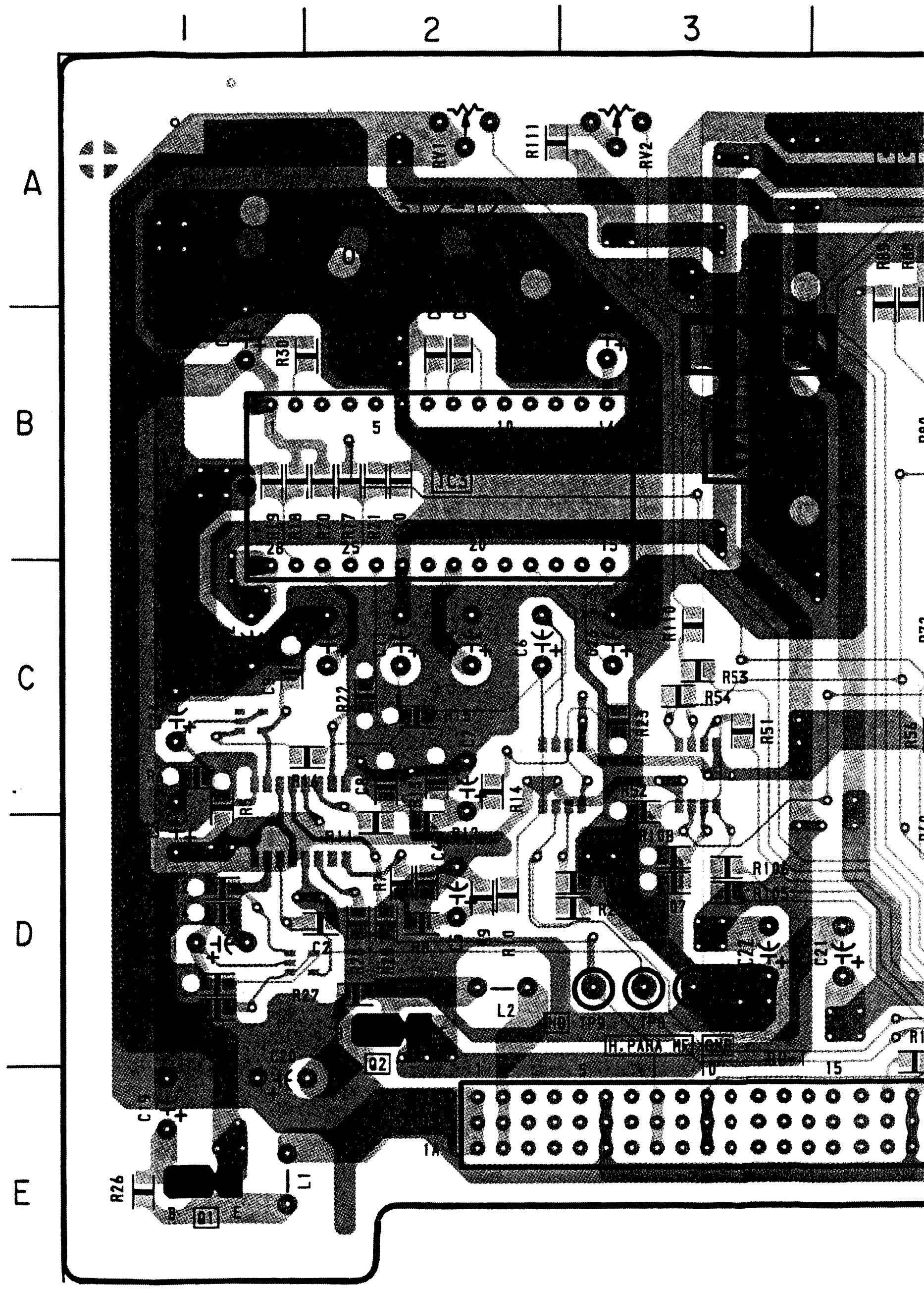
DD BOARD (COMPONENT SIDE)

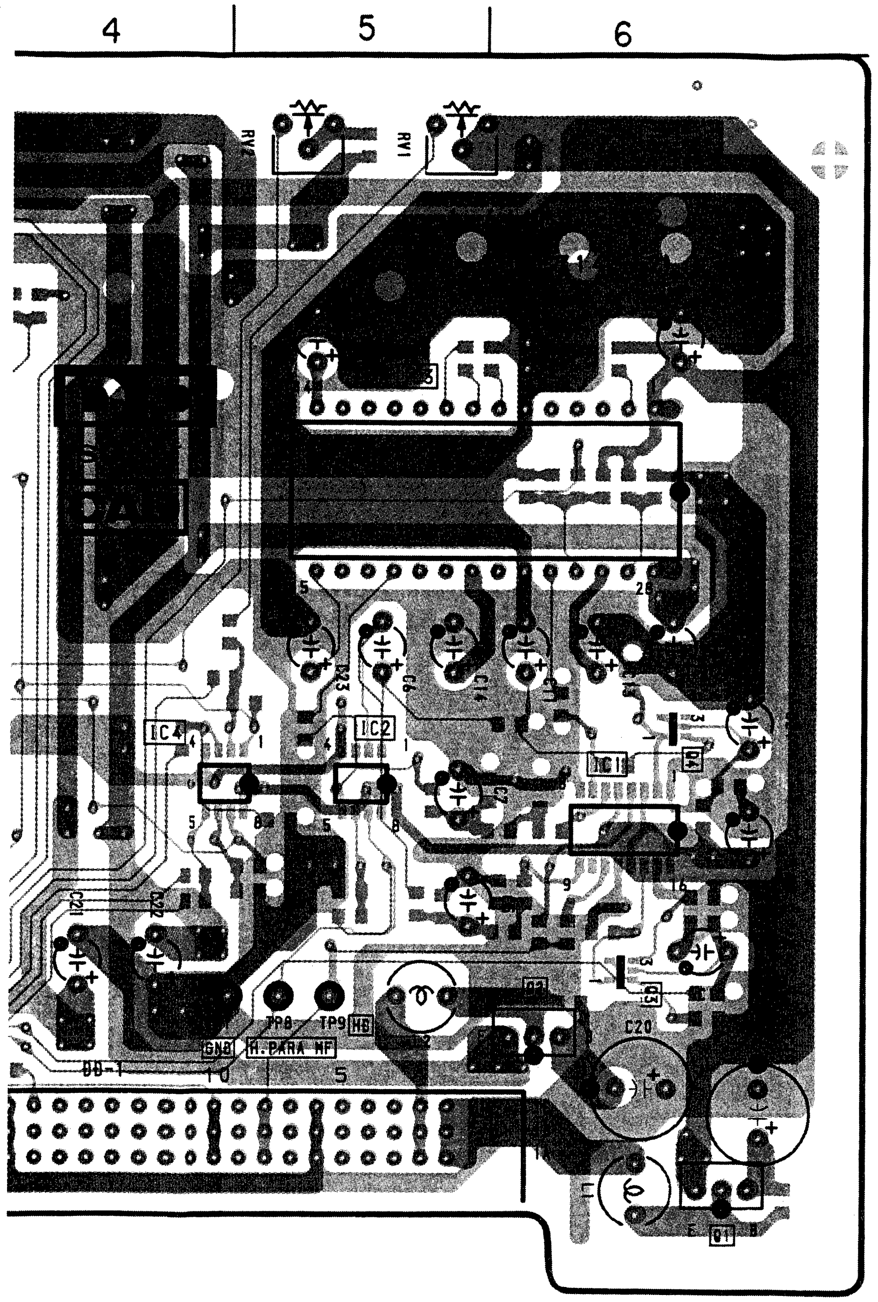
IC	
IC4	C－4
TRANSISTOR	
Q1	E－6
Q2	D－6
Q11	D－3
Q12	D－3
Q13	D－3
Q14	D－3
Q15	D－3
Q16	D－2
Q17	D－2
Q18	D－2
Q19	C－3
Q20	C－3
Q21	C－3
Q22	C－3
Q23	C－3
Q24	C－2
Q25	C－2
Q26	C－2
Q27	B－3
Q28	B－3
Q29	B－3
Q30	B－3
Q31	B－3
Q32	B－2
Q33	B－2
Q34	B－2
Q35	B－3
Q36	B－3
Q37	B－2
VARIABLE RESISTOR	
RV1	A－5
RV2	A－5

－ DD BOARD － 〈Component Side〉

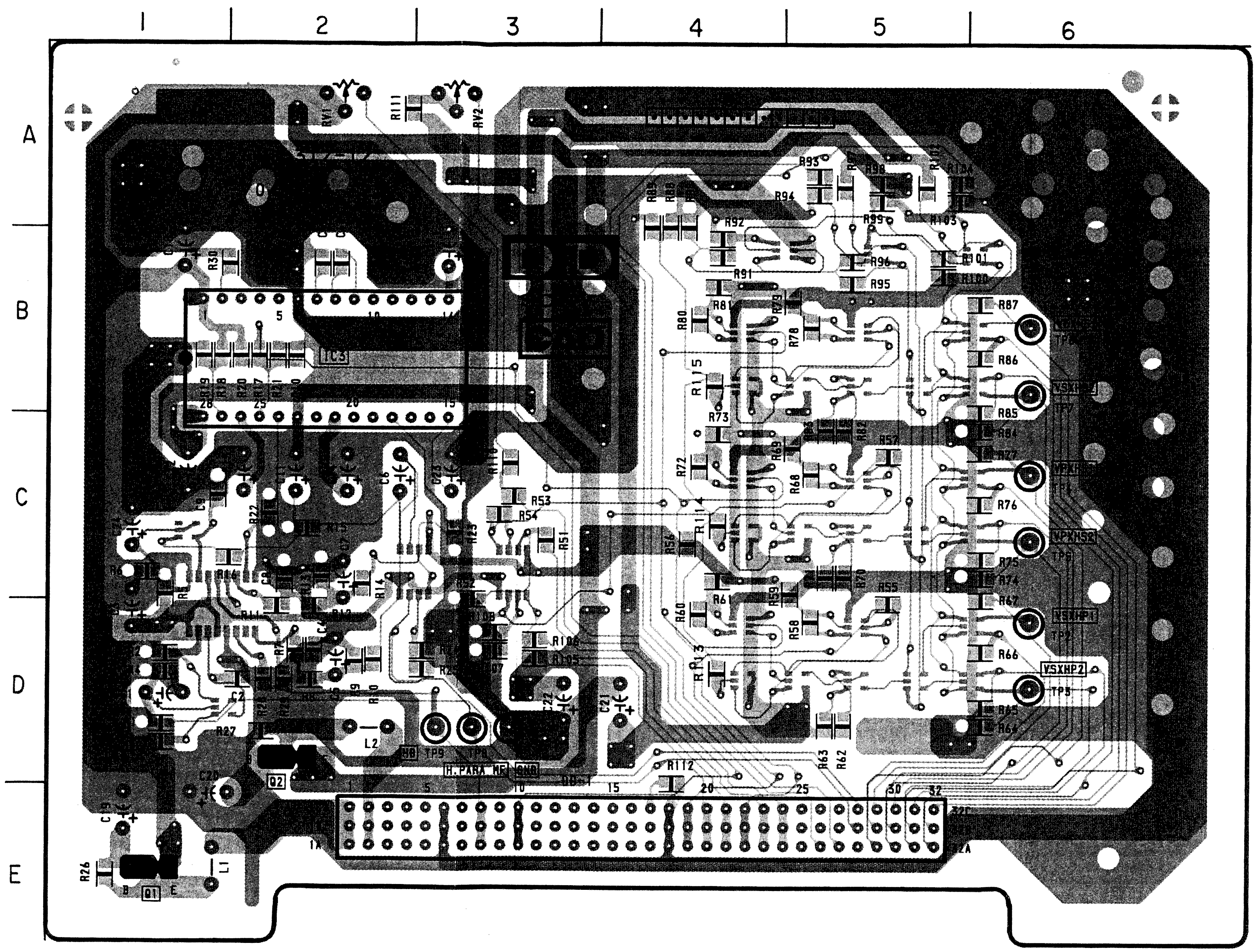

1
2
3
4
5
6
A
B
C
D
E
RV1
RV2
IC4
IC2
TP8
TP9
GND
H.PARA MF
C20
C21
L1
Q1
Q2

〈Conductor Side〉


1
2
3
A
B
C
D
E
RV1
RV2
R111
R30
IC3
R22
R53
R54
R51
R14
L2
C21
R26
L1
Q1
Q2
H.PARA MF
GND


4
5
6
RV2
RV1
IC4
IC2
IC1
D4
C21
C22
C20
TP8
TP9
GND
H.PARA MF
HG
L1
Q1
E
B
Q3
5
10

(Conductor Side)


1
2
3
4
5
6
A
B
C
D
E
RV1
RV2
R111
R93
R94
R92
R99
R103
R96
R101
R95
R100
R91
R87
R86
R85
R84
R77
R76
R75
R74
R67
R66
R65
R64
R81
R80
R79
R78
R115
R73
R72
R114
R53
R54
R51
R57
R55
R56
R60
R61
R59
R58
R113
R106
R105
R112
R63
R62
R30
R22
R14
R27
R26
R10
IC3
C2
C9
C21
C22
C20
C19
L1
L2
Q1
Q2
B
E
TP5
TP6
TP7
TP8
TP9
VSXHP1
VSXHP2
GND
H.PARA MF
HB
1
5
10
15
20
25
28
30
32
1A
32A
32C

DD BOARD
(CONDUCTOR SIDE)

TRANSISTOR	
Q1	E－1
Q2	D－2
VARIABLE RESISTOR	
RV1	A－2
RV2	A－3

Note :

- ░ : Pattern from the side which enables seeing.
- ▓ : Pattern of the rear side.

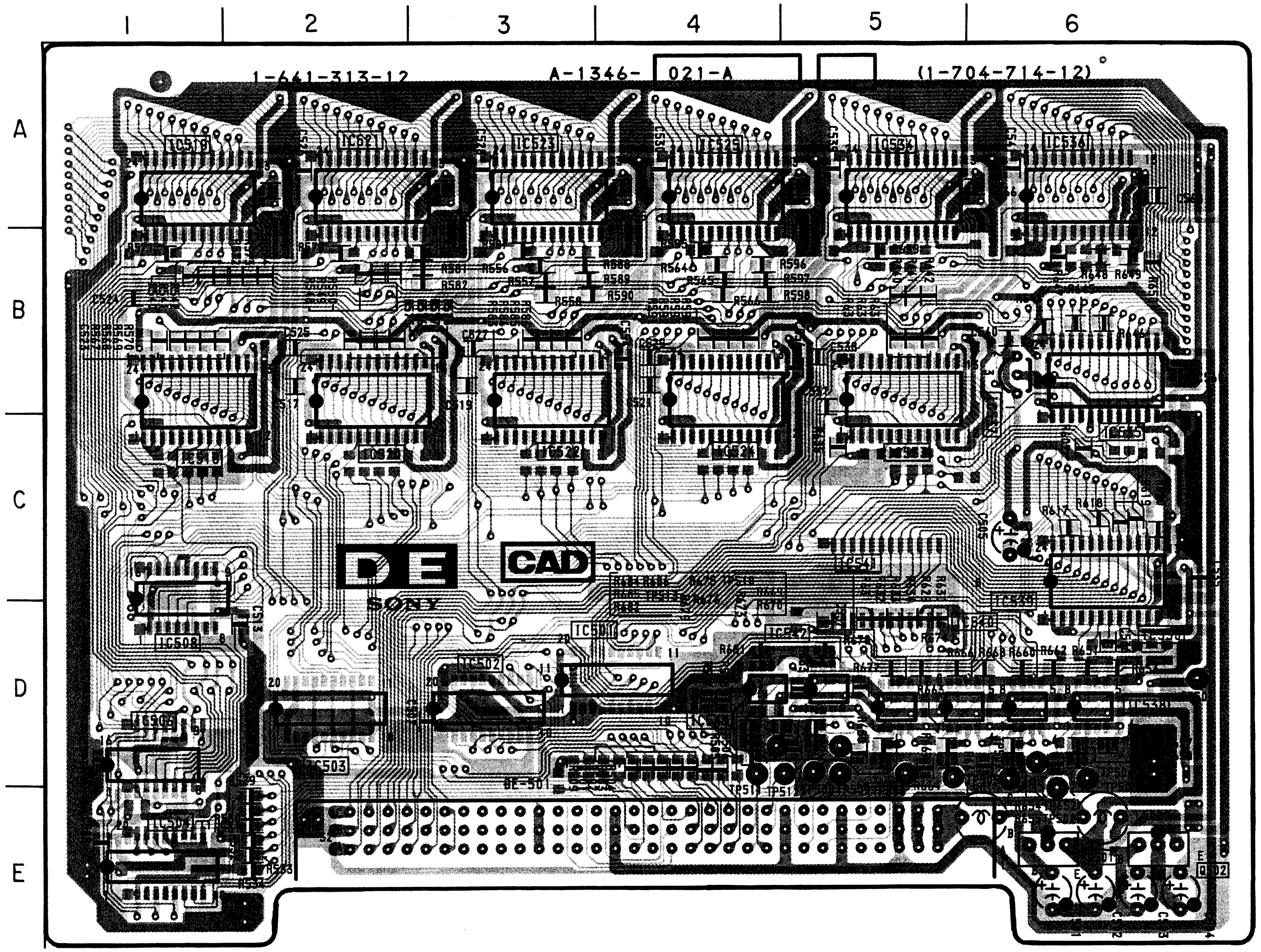
DE [ELECTRONIC VR, (RESISTRATION ADJ)]

**E BOARD
COMPONENT SIDE)**

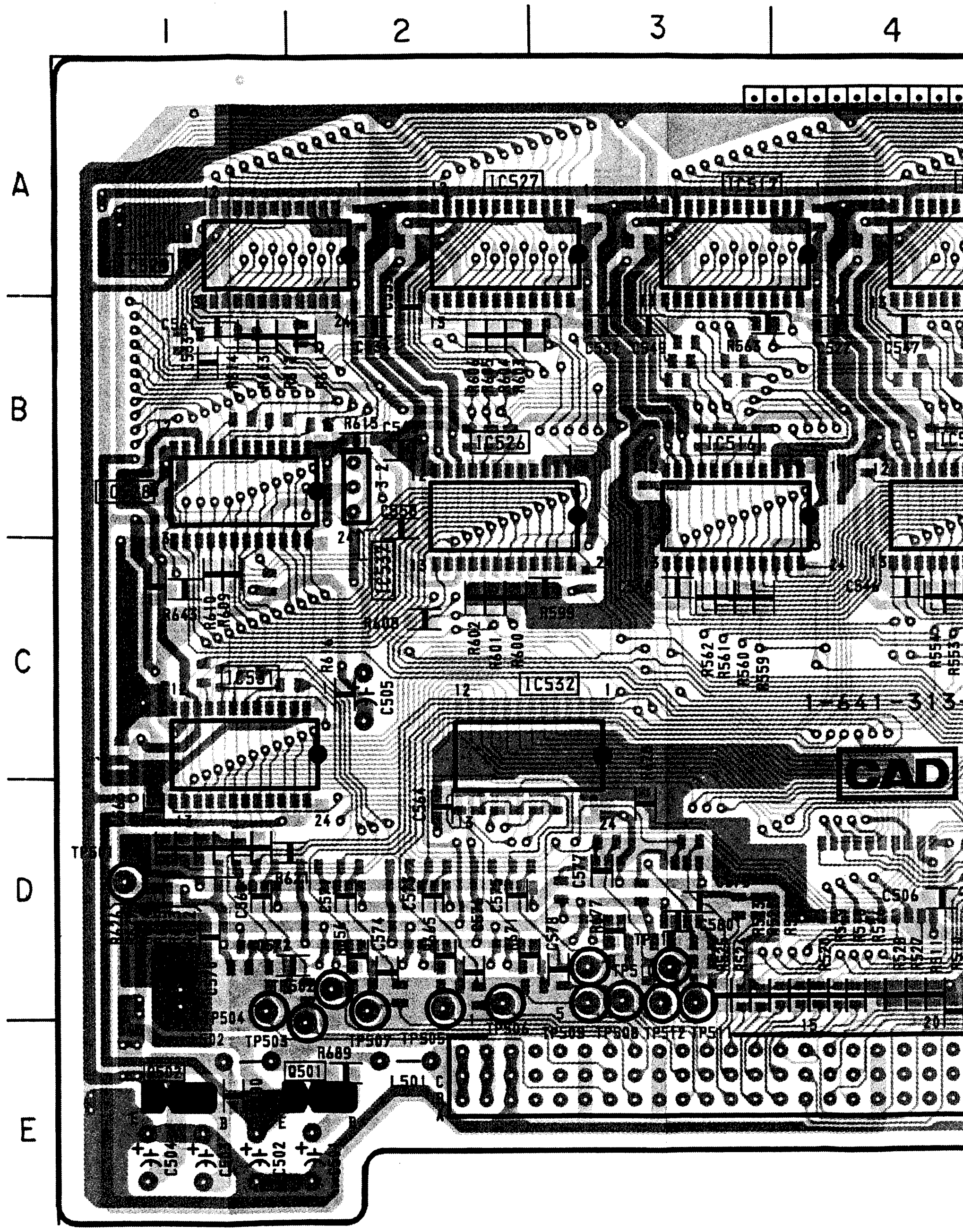
IC	
IC501	D – 4
IC502	D – 3
IC503	D – 2
IC504	E – 1
IC506	D – 1
IC508	D – 1
IC518	B – 1
IC519	A – 1
IC520	B – 2
IC521	A – 2
IC522	B – 2
IC523	A – 3
IC524	B – 4
IC525	A – 4
IC533	B – 5
IC534	A – 5
IC535	B – 6
IC536	A – 6
IC537	B – 6
IC538	D – 6
IC539	D – 6
IC540	D – 6

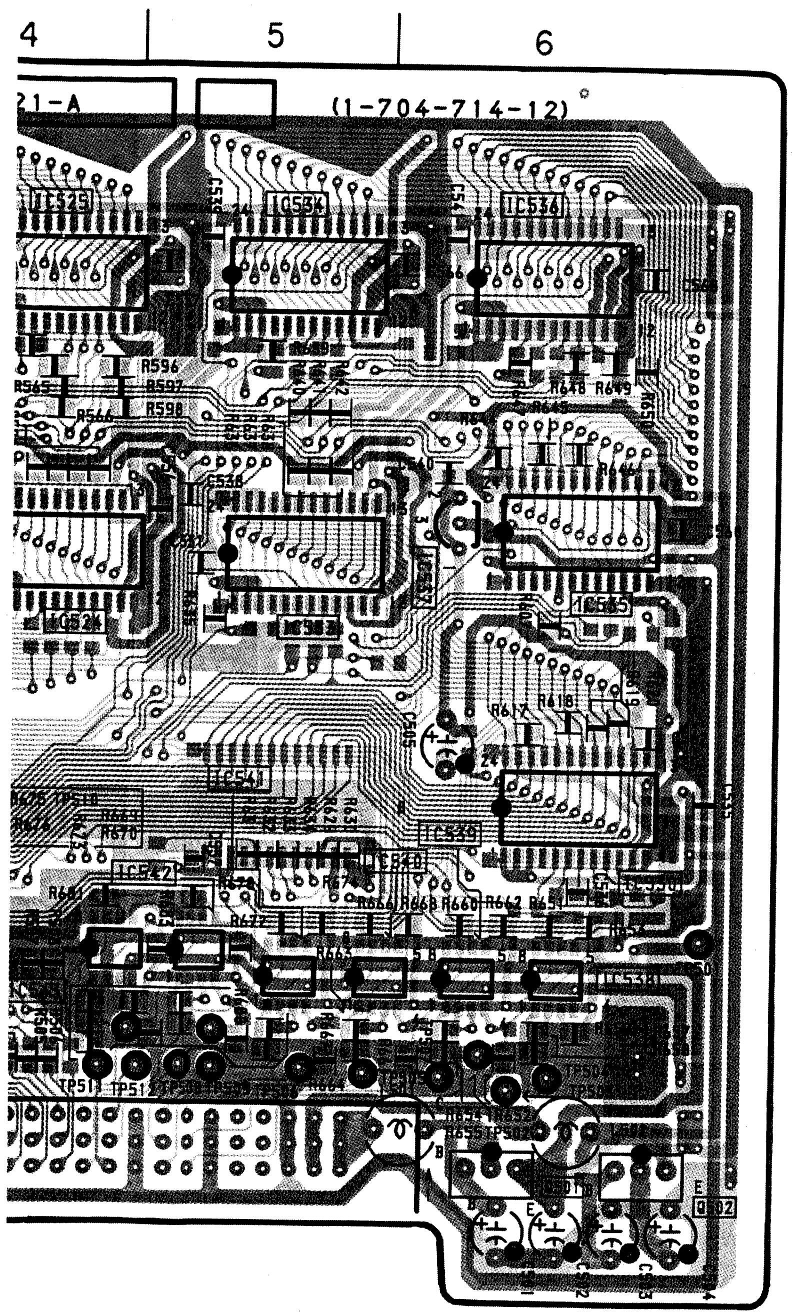
TRANSISTOR	
Q501	E – 6
Q502	E – 6

– DE BOARD – ⟨Component Side⟩

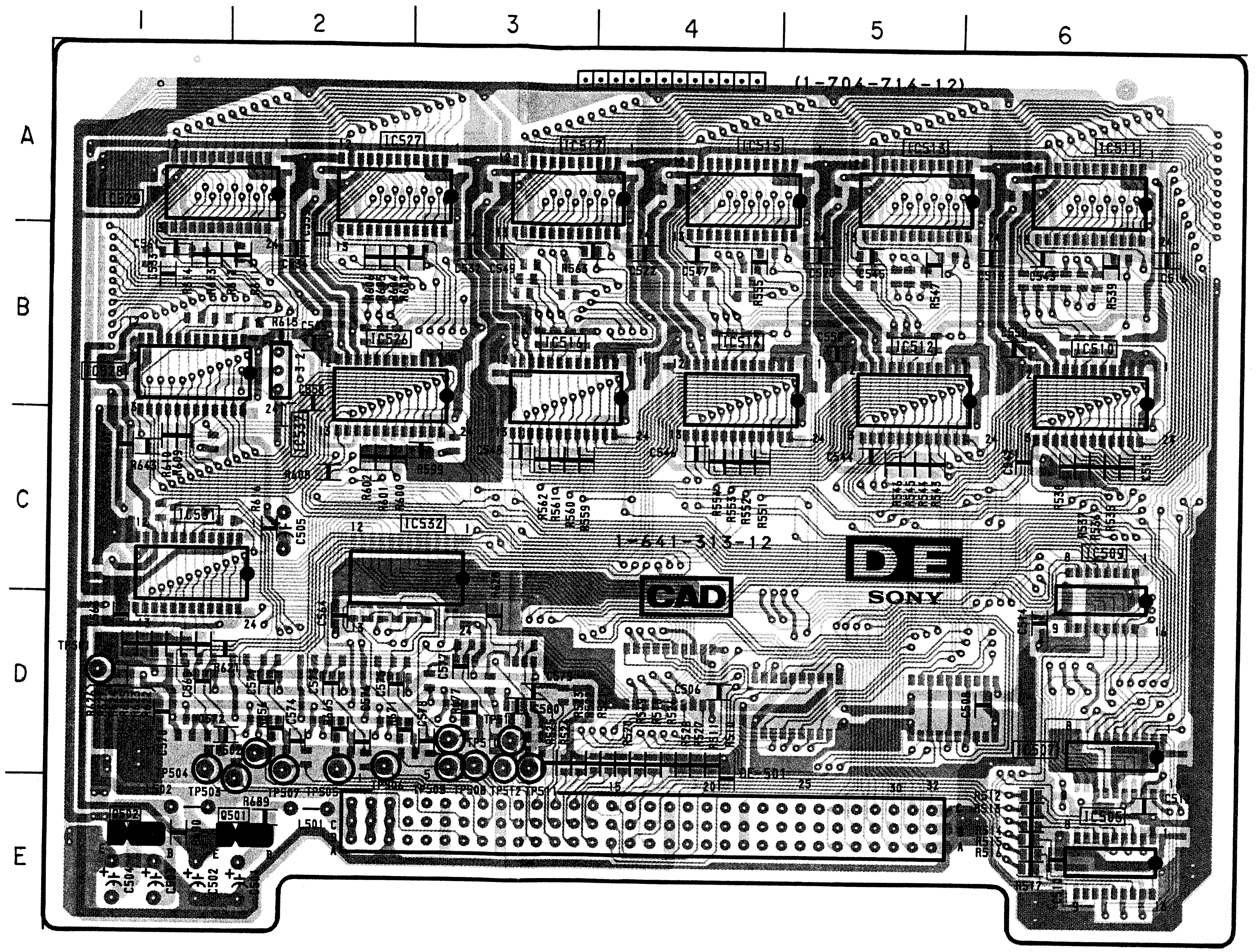

1
2
3
4
5
6
A
B
C
D
E
1-641-313-12
A-1346- 021-A
(1-704-714-12)
DE
SONY
CAD
IC501
IC502
IC503
IC508
Q502

⟨Conductor Side⟩


1
2
3
4
A
B
C
D
E
IC527
IC526
IC532
CAD
Q501


4
5
6
(1-704-714-12)
IC525
IC534
IC536
IC535
IC541
IC539
IC540
IC542
IC538
R596
R597
R598
R648
R649
R617
R618
C505
TP511
TP512
E
Q502

⟨Conductor Side⟩

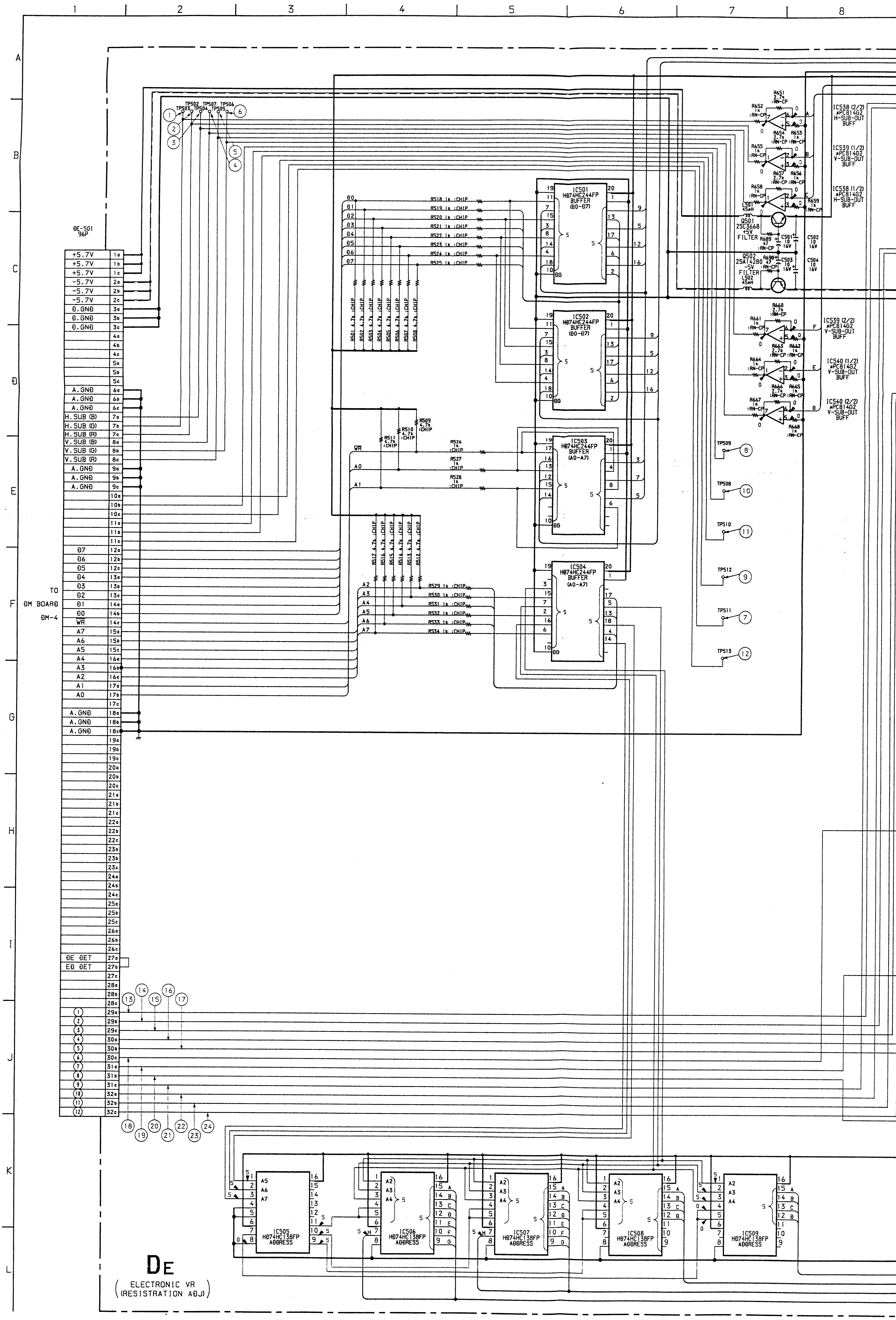

1
2
3
4
5
6
A
B
C
D
E
(1-704-714-12)
IC529
IC527
IC517
IC515
IC513
IC511
IC528
IC537
IC526
IC516
IC514
IC512
IC510
IC531
IC532
IC509
IC507
IC505
1-641-313-12
DE
CAD
SONY
Q501
Q502
L501
TP503
TP504
TP505
TP507
TP508
TP509
TP512
CN-501
C504
C502

DE BOARD
(CONDUCTOR SIDE)

IC	
IC505	E－6
IC507	D－6
IC509	C－6
IC510	B－6
IC511	A－6
IC512	B－5
IC513	A－5
IC514	B－4
IC515	A－4
IC516	B－3
IC517	A－3
IC526	B－2
IC527	A－2
IC528	B－1
IC529	A－1
IC537	B－2
TRANSISTOR	
Q501	E－2
Q502	E－1

Note :

- ▒ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.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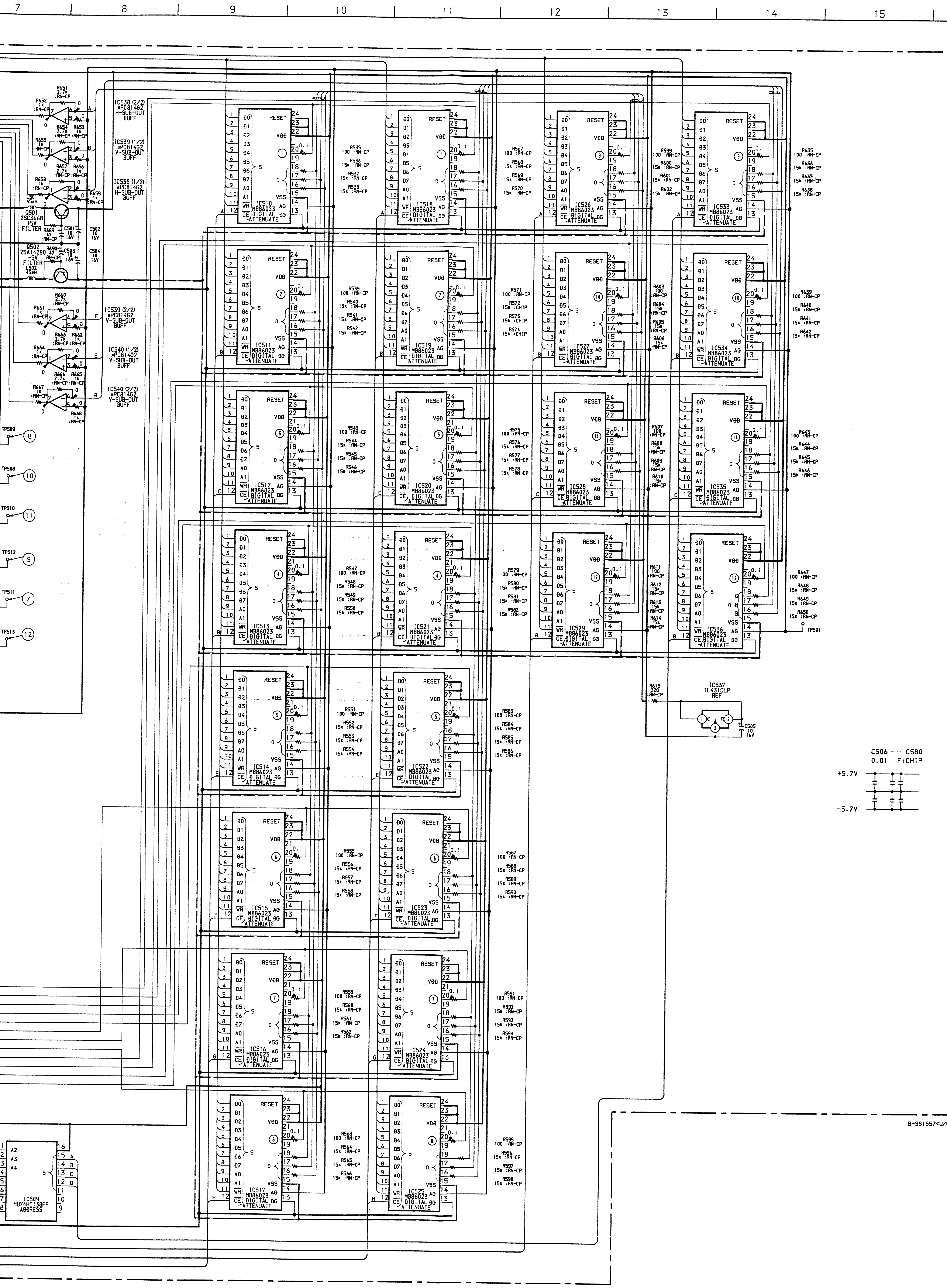
7
8
A
B
C
D
E
F
G
H
I
J
K
L
DE-501
96P
+5.7V 1a
+5.7V 1b
+5.7V 1c
-5.7V 2a
-5.7V 2b
-5.7V 2c
D.GND 3a
D.GND 3b
D.GND 3c
A.GND 6a
A.GND 6b
A.GND 6c
H.SUB (B) 7a
H.SUB (G) 7b
H.SUB (R) 7c
V.SUB (B) 8a
V.SUB (G) 8b
V.SUB (R) 8c
A.GND 9a
A.GND 9b
A.GND 9c
D7 12a
D6 12b
D5 12c
D4 13a
D3 13b
D2 13c
D1 14a
D0 14b
WR 14c
A7 15a
A6 15b
A5 15c
A4 16a
A3 16b
A2 16c
A1 17a
A0 17b
A.GND 18a
A.GND 18b
A.GND 18c
DE DET 27a
ED DET 27b
TO
DM BOARD
DM-4
TP502 TP507 TP506
TP503 TP504 TP505
R518 1k :CHIP
R519 1k :CHIP
R520 1k :CHIP
R521 1k :CHIP
R522 1k :CHIP
R523 1k :CHIP
R524 1k :CHIP
R525 1k :CHIP
R501 4.7k :CHIP
R502 4.7k :CHIP
R503 4.7k :CHIP
R504 4.7k :CHIP
R505 4.7k :CHIP
R506 4.7k :CHIP
R507 4.7k :CHIP
R508 4.7k :CHIP
IC501
H074HC244FP
BUFFER
(D0-D7)
IC502
H074HC244FP
BUFFER
(D0-D7)
IC503
H074HC244FP
BUFFER
(A0-A7)
IC504
H074HC244FP
BUFFER
(A0-A7)
R509 4.7k :CHIP
R510 4.7k :CHIP
R511 4.7k :CHIP
R526 1k :CHIP
R527 1k :CHIP
R528 1k :CHIP
R512 4.7k :CHIP
R513 4.7k :CHIP
R514 4.7k :CHIP
R515 4.7k :CHIP
R516 4.7k :CHIP
R517 4.7k :CHIP
R529 1k :CHIP
R530 1k :CHIP
R531 1k :CHIP
R532 1k :CHIP
R533 1k :CHIP
R534 1k :CHIP
R651 2.7k :RN-CP
R652 1k :RN-CP
R653 1k
R654 2.7k
IC538 (2/2)
μPC814G2
H-SUB-OUT
BUFF
R655 1k :RN-CP
R656
R657 2.7k :RN-CP
IC539 (1/2)
μPC814G2
V-SUB-OUT
BUFF
R658 1k :RN-CP
R659 1k :RN-CP
IC538 (1/2)
μPC814G2
H-SUB-OUT
BUFF
L501 45μH
Q501
2SC3668
+5V
FILTER
R689 47
C501 10 16V
C502 10 16V
Q502
2SA1428O
-5V
FILTER
R690 47
C503 10 16V
C504 10 16V
L502 45μH
R660 2.7k :RN-CP
R661 1k :RN-CP
R662 1k
R663 2.7k
IC539 (2/2)
μPC814G2
V-SUB-OUT
BUFF
R664 1k :RN-CP
R665 1k
R666 2.7k
IC540 (1/2)
μPC814G2
V-SUB-OUT
BUFF
R667 1k :RN-CP
R668 1k :RN-CP
IC540 (2/2)
μPC814G2
V-SUB-OUT
BUFF
TP509
TP508
TP510
TP512
TP511
TP513
IC505
H074HC138FP
ADDRESS
IC506
H074HC138FP
ADDRESS
IC507
H074HC138FP
ADDRESS
IC508
H074HC138FP
ADDRESS
IC509
H074HC138FP
ADDRESS
A5
A6
A7
A2
A3
A4

DE

(ELECTRONIC VR
(RESISTRATION ADJ)

7
8
9
10
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14
15
R651 2.7k :RN-CP
R652 1k :RN-CP
R653 1k :RN-CP
R654 2.7k :RN-CP
R655 1k :RN-CP
R656 1k :RN-CP
R657 2.7k :RN-CP
R658 1k :RN-CP
R659 1k :RN-CP
IC538 (2/2) μPC814G2 H-SUB-OUT BUFF
IC539 (1/2) μPC814G2 V-SUB-OUT BUFF
IC538 (1/2) μPC814G2 H-SUB-OUT BUFF
L501 45μH
Q501 2SC3668 +5V FILTER
R689 47 :RN-CP
C501 10 16V
C502 10 16V
Q502 2SA14280 -5V FILTER
L502 45μH
R690 47 :RN-CP
C503 10 16V
C504 10 16V
R660 2.7k :RN-CP
R661 1k :RN-CP
R662 1k :RN-CP
R663 2.7k :RN-CP
IC539 (2/2) μPC814G2 V-SUB-OUT BUFF
R664 1k :RN-CP
R665 1k :RN-CP
R666 2.7k :RN-CP
IC540 (1/2) μPC814G2 V-SUB-OUT BUFF
R667 1k :RN-CP
R668 1k :RN-CP
IC540 (2/2) μPC814G2 V-SUB-OUT BUFF
A
B
C
D
E
F
G
H
TP509 ⑧
TP508 ⑩
TP510 ⑪
TP512 ⑨
TP511 ⑦
TP513 ⑫
TP501
D0 D1 D2 D3 D4 D5 D6 D7 A0 A1 WR CE
RESET VDD VSS AG DG
IC510 MB86023 DIGITAL ATTENUATE
IC511 MB86023 DIGITAL ATTENUATE
IC512 MB86023 DIGITAL ATTENUATE
IC513 MB86023 DIGITAL ATTENUATE
IC514 MB86023 DIGITAL ATTENUATE
IC515 MB86023 DIGITAL ATTENUATE
IC516 MB86023 DIGITAL ATTENUATE
IC517 MB86023 DIGITAL ATTENUATE
IC518 MB86023 DIGITAL ATTENUATE
IC519 MB86023 DIGITAL ATTENUATE
IC520 MB86023 DIGITAL ATTENUATE
IC521 MB86023 DIGITAL ATTENUATE
IC522 MB86023 DIGITAL ATTENUATE
IC523 MB86023 DIGITAL ATTENUATE
IC524 MB86023 DIGITAL ATTENUATE
IC525 MB86023 DIGITAL ATTENUATE
IC526 MB86023 DIGITAL ATTENUATE
IC527 MB86023 DIGITAL ATTENUATE
IC528 MB86023 DIGITAL ATTENUATE
IC529 MB86023 DIGITAL ATTENUATE
IC533 MB86023 DIGITAL ATTENUATE
IC534 MB86023 DIGITAL ATTENUATE
IC535 MB86023 DIGITAL ATTENUATE
IC536 MB86023 DIGITAL ATTENUATE
R535 100 :RN-CP
R536 15k :RN-CP
R537 15k :RN-CP
R538 15k :RN-CP
R539 100 :RN-CP
R540 15k :RN-CP
R541 15k :RN-CP
R542 15k :RN-CP
R543 100 :RN-CP
R544 15k :RN-CP
R545 15k :RN-CP
R546 15k :RN-CP
R547 100 :RN-CP
R548 15k :RN-CP
R549 15k :RN-CP
R550 15k :RN-CP
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R555 100 :RN-CP
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R570 15k :RN-CP
R571 100 :RN-CP
R572 15k :CHIP
R573 15k :CHIP
R574 15k :CHIP
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R578 15k :RN-CP
R579 100 :RN-CP
R580 15k :RN-CP
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R587 100 :RN-CP
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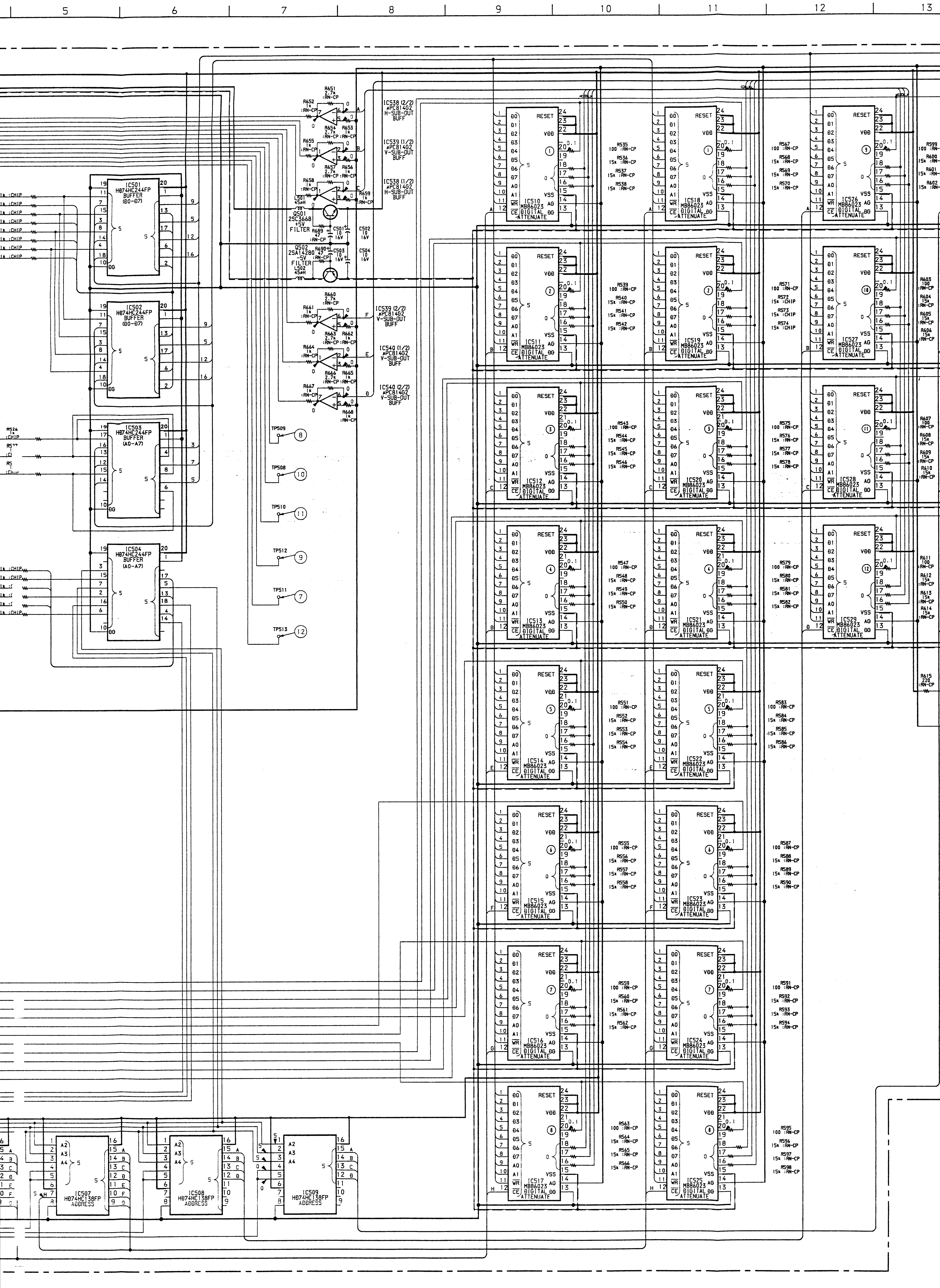
R589 15k :RN-CP
R590 15k :RN-CP
R591 100 :RN-CP
R592 15k :RN-CP
R593 15k :RN-CP
R594 15k :RN-CP
R595 100 :RN-CP
R596 15k :RN-CP
R597 15k :RN-CP
R598 15k :RN-CP
R599 100 :RN-CP
R600 15k :RN-CP
R601 15k :RN-CP
R602 15k :RN-CP
R603 100 :RN-CP
R604 15k :RN-CP
R605 15k :RN-CP
R606 15k :RN-CP
R607 100 :RN-CP
R608 15k :RN-CP
R609 15k :RN-CP
R610 15k :RN-CP
R611 100 :RN-CP
R612 15k :RN-CP
R613 15k :RN-CP
R614 15k :RN-CP
R635 100 :RN-CP
R636 15k :RN-CP
R637 15k :RN-CP
R638 15k :RN-CP
R639 100 :RN-CP
R640 15k :RN-CP
R641 15k :RN-CP
R642 15k :RN-CP
R643 100 :RN-CP
R644 15k :RN-CP
R645 15k :RN-CP
R646 15k :RN-CP
R647 100 :RN-CP
R648 15k :RN-CP
R649 15k :RN-CP
R650 15k :RN-CP
R615 220 :RN-CP
IC537 TL431CLP REF
K A R
C505 10 16V
C506 ---- C580
0.01 F:CHIP
+5.7V
-5.7V
A2 A3 A4
IC509 HD74HC138FP ADDRESS
B-SS1557<U/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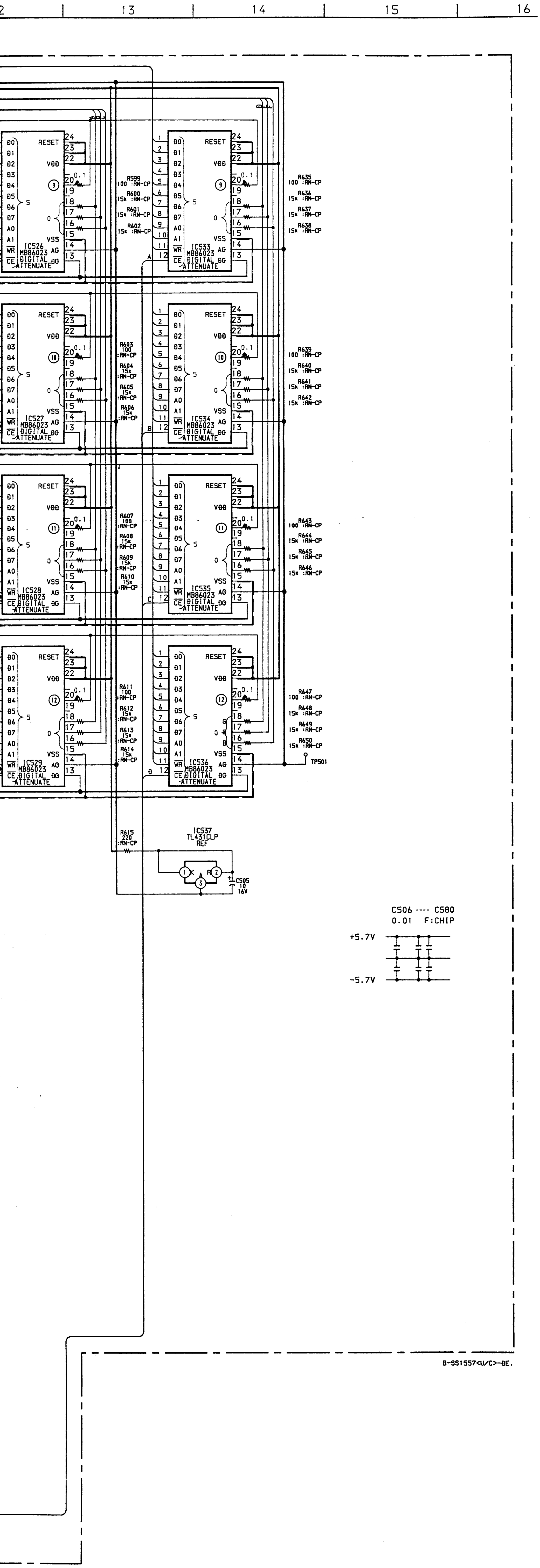
IC501
H074HC244FP
BUFFER
(D0-D7)
IC502
H074HC244FP
BUFFER
(D0-D7)
IC503
H074HC244FP
BUFFER
(A0-A7)
IC504
H074HC244FP
BUFFER
(A0-A7)
IC538 (2/2)
μPC814G2
H-SUB-OUT
BUFF
IC539 (1/2)
μPC814G2
V-SUB-OUT
BUFF
IC538 (1/2)
μPC814G2
H-SUB-OUT
BUFF
IC539 (2/2)
μPC814G2
V-SUB-OUT
BUFF
IC540 (1/2)
μPC814G2
V-SUB-OUT
BUFF
IC540 (2/2)
μPC814G2
V-SUB-OUT
BUFF
L501
45μH
Q501
2SC3668
+5V
FILTER
Q502
2SA1428
-5V
FILTER
L502
45μH
C501
10
16V
C502
10
16V
C503
10
16V
C504
10
16V
R689
47
R690
47
TP509
TP508
TP510
TP512
TP511
TP513
IC510
IC511
IC512
IC513
IC514
IC515
IC516
IC517
IC518
IC519
IC520
IC521
IC522
IC523
IC524
IC525
IC526
IC527
IC528
IC529
MB86023
DIGITAL
ATTENUATE
RESET
VDD
VSS
AG
DG
WR
CE
IC507
H074HC138FP
ADDRESS
IC508
H074HC138FP
ADDRESS
IC509
H074HC138FP
ADDRESS
100 :RN-CP
15k :RN-CP
15k :CHIP
1k :CHIP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16
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VDD
VSS
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MB86023
DIGITAL ATTENUATE
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MB86023
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IC529
MB86023
IC533
MB86023
IC534
MB86023
IC535
MB86023
IC536
MB86023
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R615 220 :RN-CP
R635 100 :RN-CP
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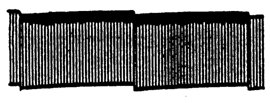
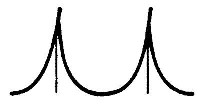
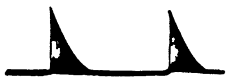
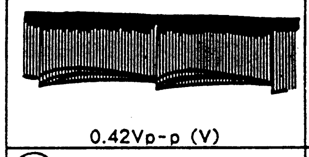
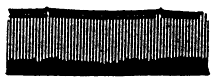
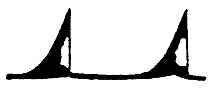
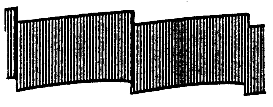
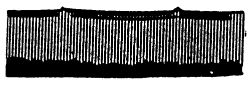
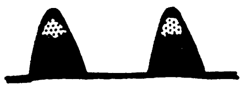
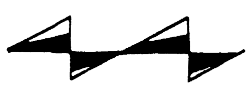
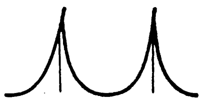
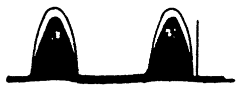
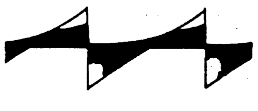
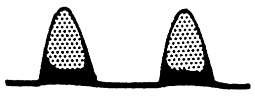
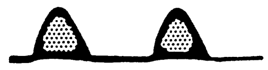
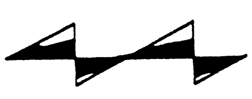
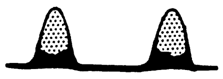
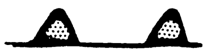
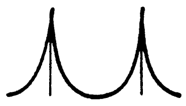
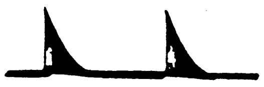
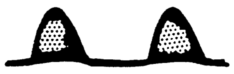
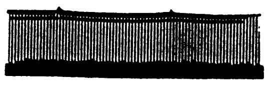
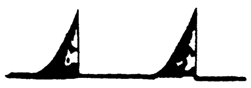
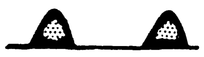
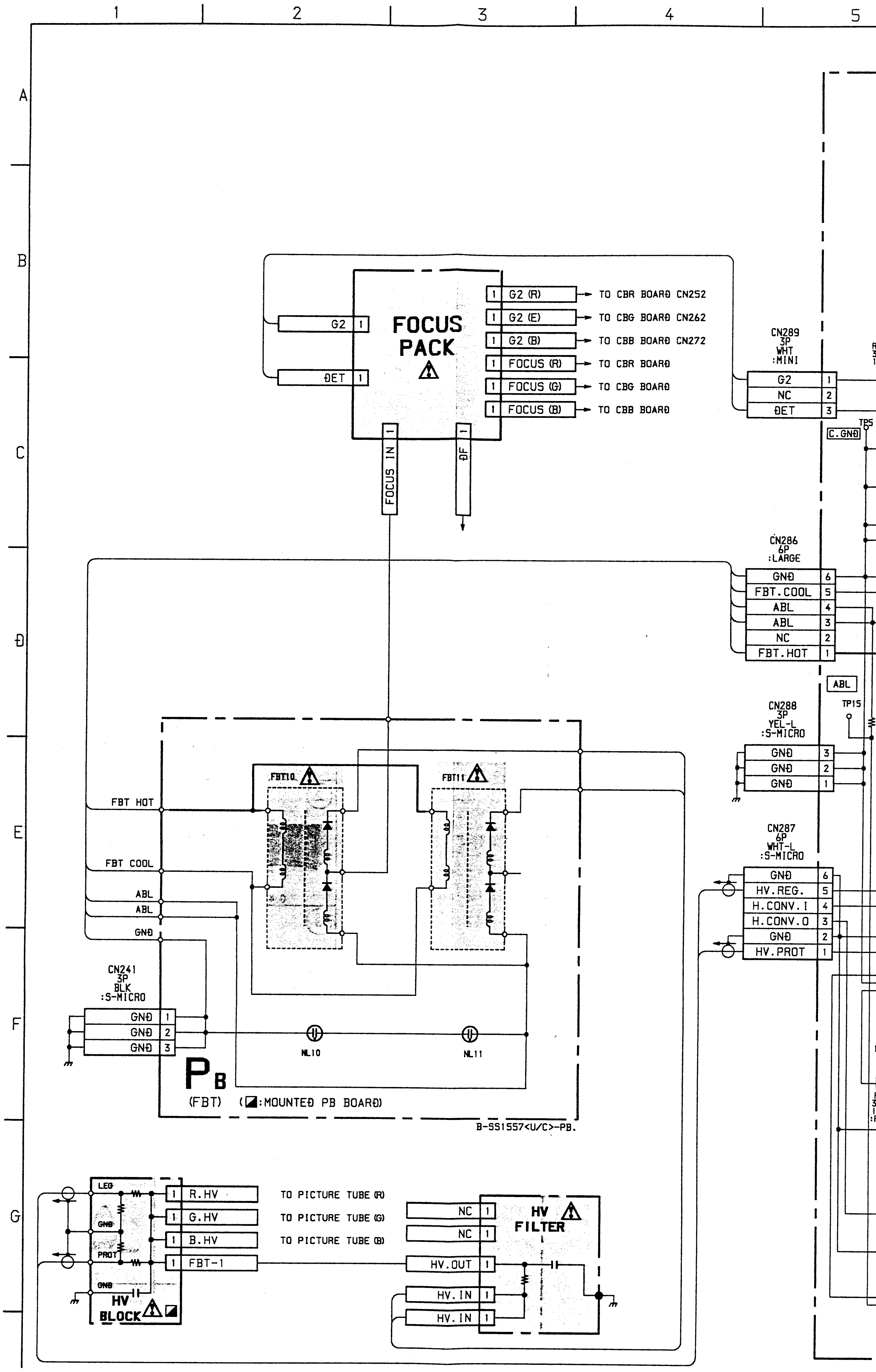
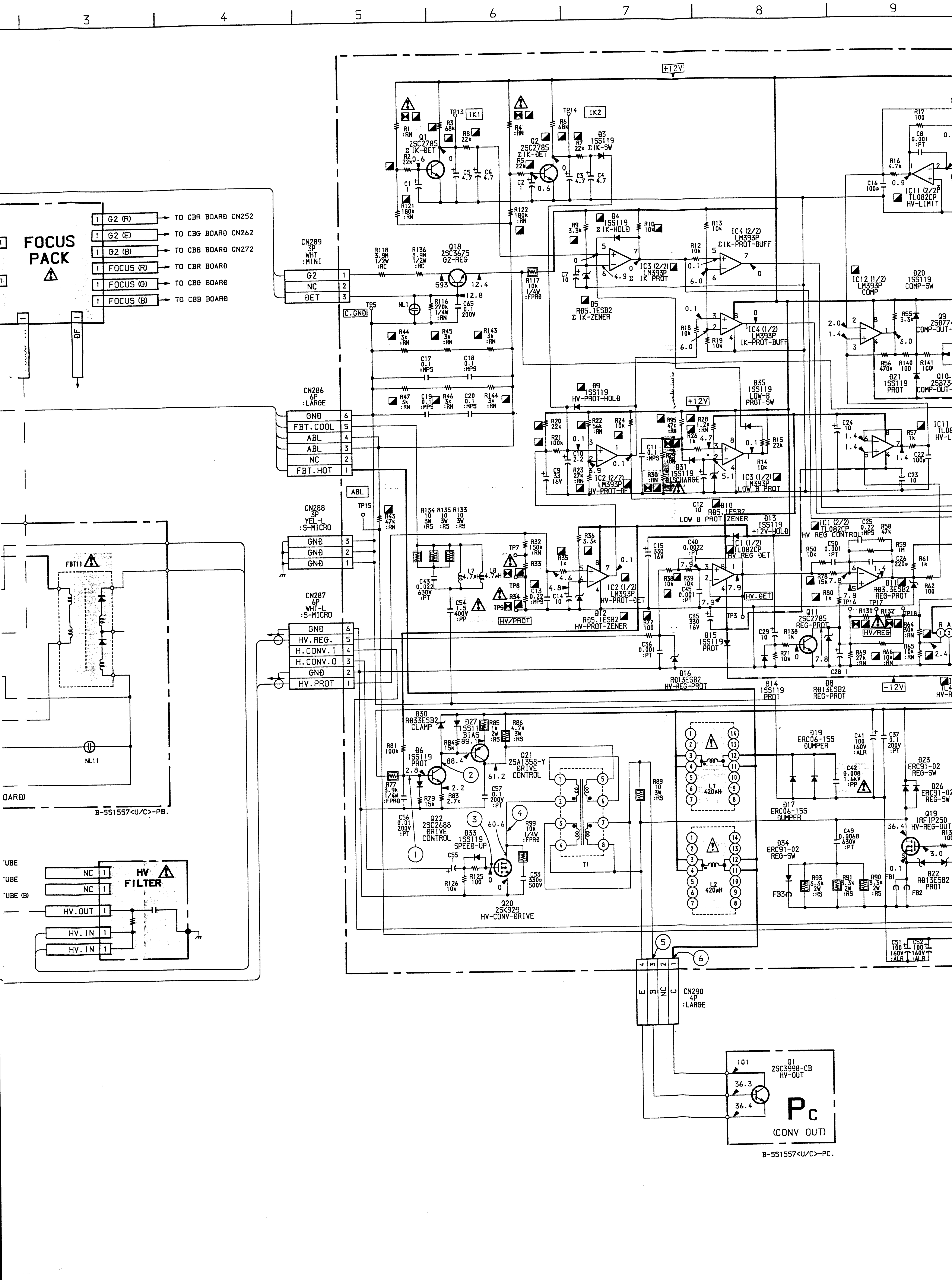
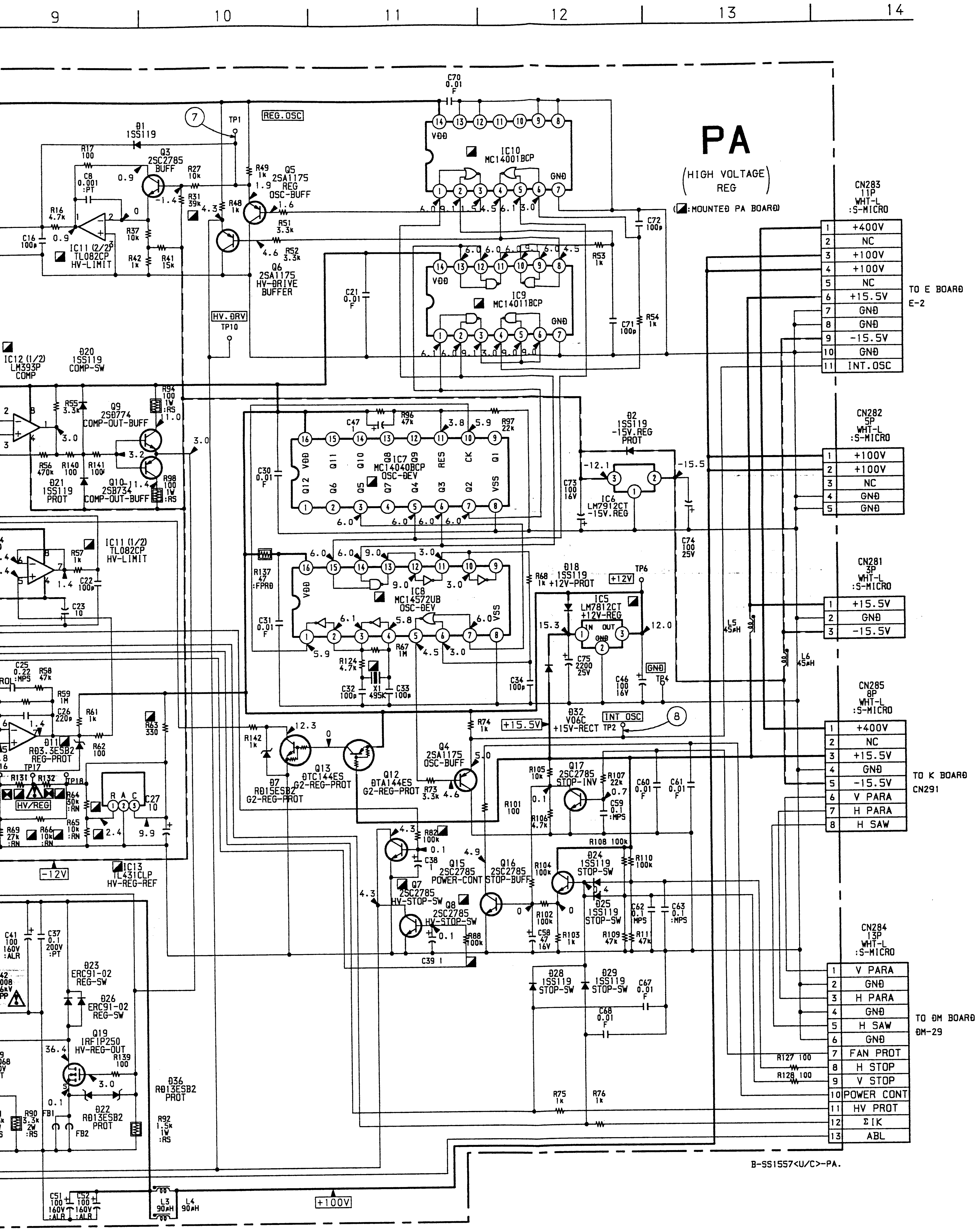
R643 100 :RN-CP
R644 15k :RN-CP
R645 15k :RN-CP
R646 15k :RN-CP
R647 100 :RN-CP
R648 15k :RN-CP
R649 15k :RN-CP
R650 15k :RN-CP
TP501
IC537
TL431CLP
REF
C505 10 16V
C506 ---- C580
0.01 F:CHIP
+5.7V
-5.7V
B-SS1557<U/C>-DE.

• DE BOARD WAVEFORMS

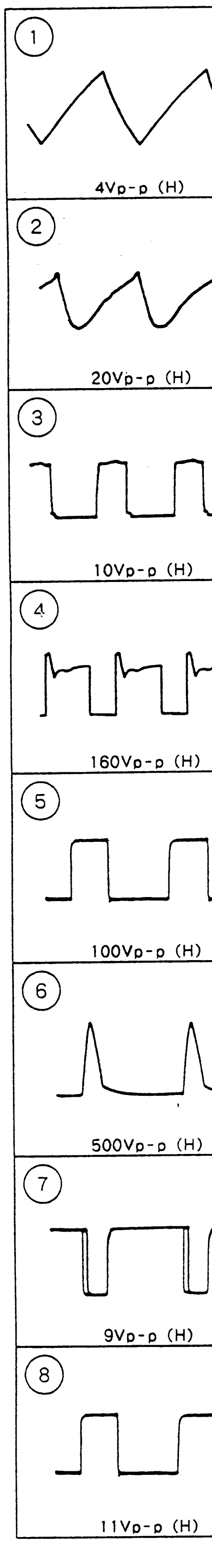
①  0.48Vp-p (V)	⑨  0.5Vp-p (V)	⑰  0.9Vp-p (V)
②  0.42Vp-p (V)	⑩  0.7Vp-p (V)	⑱  1Vp-p (V)
③  0.7Vp-p (V)	⑪  0.66Vp-p (V)	⑲  1.5Vp-p (V)
④  0.72Vp-p (V)	⑫  0.5Vp-p (V)	⑳  1.8Vp-p (V)
⑤  0.96Vp-p (V)	⑬  1.1Vp-p (V)	㉑  0.7Vp-p (V)
⑥  0.7Vp-p (V)	⑭  0.9Vp-p (V)	㉒  0.6Vp-p (V)
⑦  0.44Vp-p (V)	⑮  0.9Vp-p (V)	㉓  0.8Vp-p (V)
⑧  0.7Vp-p (V)	⑯  8Vp-p (V)	㉔  0.6Vp-p (V)

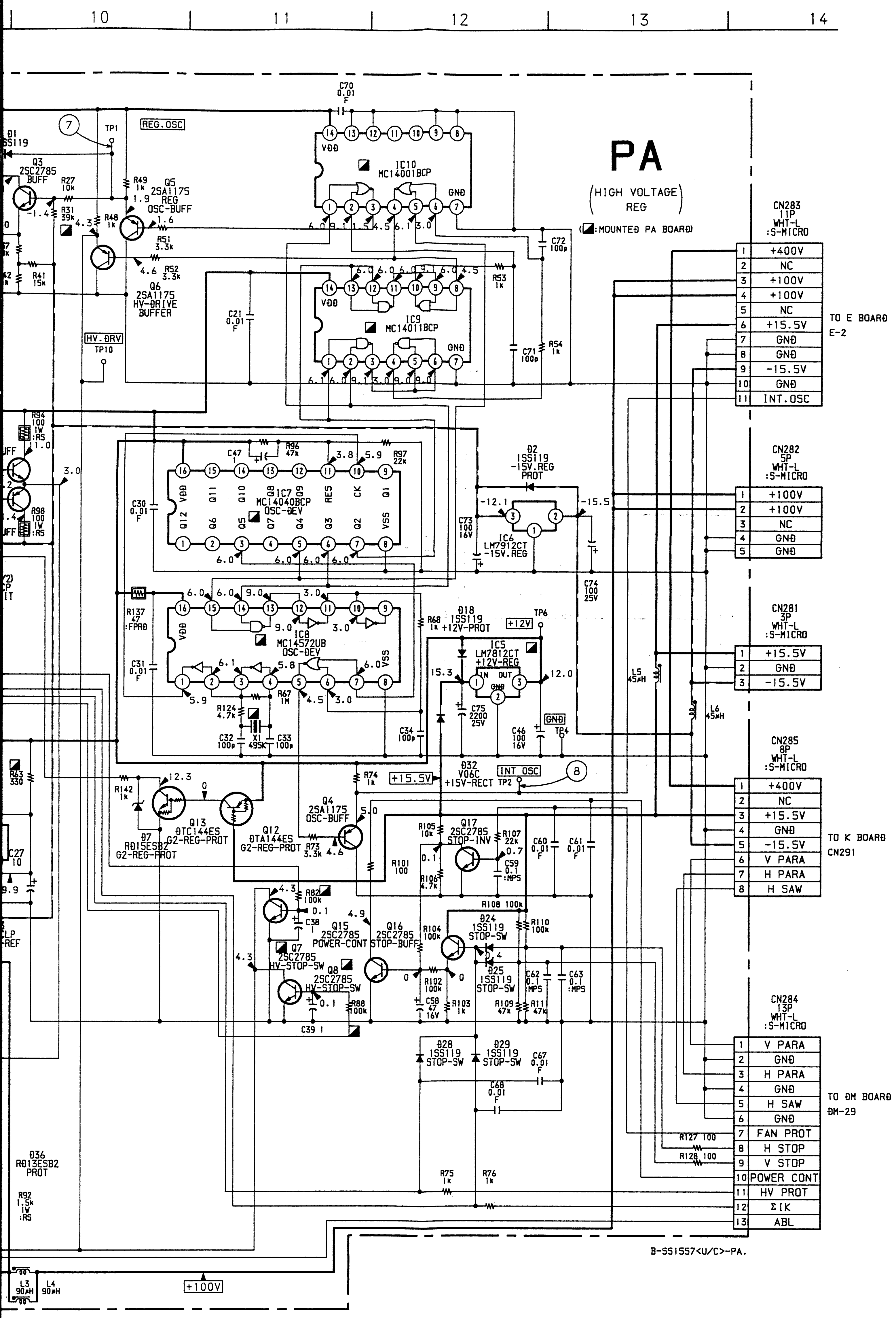

1
2
3
4
5
A
B
C
D
E
F
G
FOCUS PACK
G2
DET
G2 (R)
G2 (G)
G2 (B)
FOCUS (R)
FOCUS (G)
FOCUS (B)
TO CBR BOARD CN252
TO CBG BOARD CN262
TO CBB BOARD CN272
TO CBR BOARD
TO CBG BOARD
TO CBB BOARD
FOCUS IN
DF
CN289 3P WHT :MINI
G2
NC
DET
C.GND
TP5
CN286 6P :LARGE
GND
FBT.COOL
ABL
ABL
NC
FBT.HOT
ABL
TP15
CN288 3P YEL-L :S-MICRO
GND
GND
GND
CN287 6P WHT-L :S-MICRO
GND
HV.REG.
H.CONV.I
H.CONV.O
GND
HV.PROT
FBT10
FBT11
FBT HOT
FBT COOL
ABL
ABL
GND
CN241 3P BLK :S-MICRO
GND
GND
GND
NL10
NL11
PB
(FBT)
(◪:MOUNTED PB BOARD)
B-SS1557<U/C>-PB.
LEG
GND
PROT
GND
HV BLOCK
R.HV
G.HV
B.HV
FBT-1
TO PICTURE TUBE (R)
TO PICTURE TUBE (G)
TO PICTURE TUBE (B)
NC
NC
HV.OUT
HV.IN
HV.IN
HV FILTER


3
4
5
6
7
8
9
FOCUS PACK
G2 (R) → TO CBR BOARD CN252
G2 (E) → TO CBG BOARD CN262
G2 (B) → TO CBB BOARD CN272
FOCUS (R) → TO CBR BOARD
FOCUS (G) → TO CBG BOARD
FOCUS (B) → TO CBB BOARD
CN289 3P WHT :MINI
G2
NC
DET
C.GND
CN286 6P :LARGE
GND
FBT.COOL
ABL
ABL
NC
FBT.HOT
ABL
CN288 3P YEL-L :S-MICRO
GND
GND
GND
CN287 6P WHT-L :S-MICRO
GND
HV.REG.
H.CONV.I
H.CONV.O
GND
HV.PROT
FBT11
NL11
B-SS1557<U/C>-PB.
HV FILTER
NC
NC
HV.OUT
HV.IN
HV.IN
+12V
Q1 2SC2785 Σ IK-DET
Q2 2SC2785 Σ IK-DET
D3 1SS119 Σ IK-SW
D4 1SS119 Σ IK-HOLD
IC3 (2/2) LM393P Σ IK PROT
IC4 (2/2) LM393P Σ IK-PROT-BUFF
IC4 (1/2) LM393P IK-PROT-BUFF
D5 RD5.1ESB2 Σ IK-ZENER
Q18 2SC3675 G2-REG
IC12 (1/2) LM393P COMP
D20 1SS119 COMP-SW
IC11 (2/2) TL082CP HV-LIMIT
D9 1SS119 HV-PROT-HOLD
D35 1SS119 LOW-B PROT-SW
IC2 (2/2) LM393P HV-PROT-DET
IC3 (1/2) LM393P LOW B PROT
D31 1SS119 DISCHARGE
D10 RD5.1ESB2 LOW B PROT ZENER
D13 1SS119 +12V-HOLD
IC1 (2/2) TL082CP HV REG CONTROL
IC1 (1/2) TL082CP HV REG DET
IC2 (1/2) LM393P HV-PROT-DET
D12 RD5.1ESB2 HV-PROT-ZENER
HV/PROT
HV.DET
D15 1SS119 PROT
D16 RD13ESB2 HV-REG-PROT
Q11 2SC2785 REG-PROT
D11 RD3.3ESB2 REG-PROT
HV/REG
D14 1SS119 PROT
D8 RD13ESB2 REG-PROT
-12V
D30 RD33ESB2 CLAMP
D27 1SS119 BIAS
D6 1SS119 PROT
Q21 2SA1358-Y DRIVE CONTROL
Q22 2SC2688 DRIVE CONTROL
D33 1SS119 SPEED-UP
Q20 2SK929 HV-CONV-DRIVE
T1
L1 420μH
L2 420μH
D19 ERC06-15S DUMPER
D17 ERC06-15S DUMPER
D34 ERC91-02 REG-SW
D23 ERC91-02 REG-SW
D26 ERC91-02 REG-SW
Q19 IRF1P250 HV-REG-OUT
D22 RD13ESB2 PROT
CN290 4P :LARGE
E
B
NC
C
Q1 2SC3998-CB HV-OUT
Pc (CONV OUT)
B-SS1557<U/C>-PC.

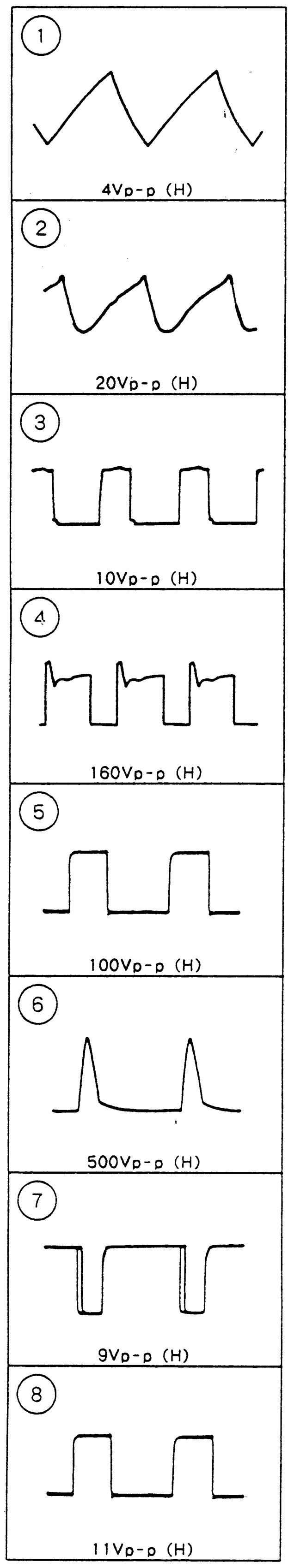

9
10
11
12
13
14
PA
(HIGH VOLTAGE REG)
(▣:MOUNTED PA BOARD)
REG.OSC
HV.DRV
INT OSC
+12V
+15.5V
GND
-12V
+100V
HV/REG
IC10 MC14001BCP
IC9 MC14011BCP
IC7 MC14040BCP OSC-DEV
IC8 MC14572UB OSC-DEV
IC5 LM7812CT +12V-REG
IC6 LM7912CT -15V.REG
IC11 (1/2) TL082CP HV-LIMIT
IC11 (2/2) TL082CP HV-LIMIT
IC12 (1/2) LM393P COMP
IC13 TL431CLP HV-REG-REF
Q3 2SC2785 BUFF
Q5 2SA1175 REG OSC-BUFF
Q6 2SA1175 HV-DRIVE BUFFER
Q9 2SD774 COMP-OUT-BUFF
Q10 2SB734 COMP-OUT-BUFF
Q4 2SA1175 OSC-BUFF
Q12 DTA144ES G2-REG-PROT
Q13 DTC144ES G2-REG-PROT
Q15 2SC2785 POWER-CONT
Q16 2SC2785 STOP-BUFF
Q17 2SC2785 STOP-INV
Q7 2SC2785 HV-STOP-SW
Q8 2SC2785 HV-STOP-SW
Q19 IRF1P250 HV-REG-OUT
CN283 11P WHT-L :S-MICRO
1 +400V
2 NC
3 +100V
4 +100V
5 NC
6 +15.5V
7 GND
8 GND
9 -15.5V
10 GND
11 INT.OSC
TO E BOARD E-2
CN282 5P WHT-L :S-MICRO
1 +100V
2 +100V
3 NC
4 GND
5 GND
CN281 3P WHT-L :S-MICRO
1 +15.5V
2 GND
3 -15.5V
CN285 8P WHT-L :S-MICRO
1 +400V
2 NC
3 +15.5V
4 GND
5 -15.5V
6 V PARA
7 H PARA
8 H SAW
TO K BOARD CN291
CN284 13P WHT-L :S-MICRO
1 V PARA
2 GND
3 H PARA
4 GND
5 H SAW
6 GND
7 FAN PROT
8 H STOP
9 V STOP
10 POWER CONT
11 HV PROT
12 ΣIK
13 ABL
TO DM BOARD DM-29
B-SS1557<U/C>-PA.

• PA BOARD WAVE




10
11
12
13
14
PA
(HIGH VOLTAGE REG)
(◪: MOUNTED PA BOARD)
IC10 MC14001BCP
IC9 MC14011BCP
IC7 MC14040BCP OSC-DEV
IC8 MC14572UB OSC-DEV
IC6 LM7912CT -15V.REG
IC5 LM7812CT +12V-REG
Q5 2SA1175 REG OSC-BUFF
Q6 2SA1175 HV-DRIVE BUFFER
Q3 2SC2785 BUFF
Q4 2SA1175 OSC-BUFF
Q12 DTA144ES G2-REG-PROT
Q13 DTC144ES G2-REG-PROT
Q15 2SC2785 POWER-CONT
Q16 2SC2785 STOP-BUFF
Q17 2SC2785 STOP-INV
Q7 2SC2785 HV-STOP-SW
Q8 2SC2785 HV-STOP-SW
D2 1SS119 -15V.REG PROT
D18 1SS119 +12V-PROT
D32 V06C +15V-RECT
D24 1SS119 STOP-SW
D25 1SS119 STOP-SW
D28 1SS119 STOP-SW
D29 1SS119 STOP-SW
D7 RD15ESB2 G2-REG-PROT
D36 RD13ESB2 PROT
REG.OSC
HV.DRV TP10
TP1
TP2
TP4
TP6
+12V
+15.5V
INT OSC
GND
+100V
CN283 11P WHT-L :S-MICRO
1 +400V
2 NC
3 +100V
4 +100V
5 NC
6 +15.5V
7 GND
8 GND
9 -15.5V
10 GND
11 INT.OSC
TO E BOARD E-2
CN282 5P WHT-L :S-MICRO
1 +100V
2 +100V
3 NC
4 GND
5 GND
CN281 3P WHT-L :S-MICRO
1 +15.5V
2 GND
3 -15.5V
CN285 8P WHT-L :S-MICRO
1 +400V
2 NC
3 +15.5V
4 GND
5 -15.5V
6 V PARA
7 H PARA
8 H SAW
TO K BOARD CN291
CN284 13P WHT-L :S-MICRO
1 V PARA
2 GND
3 H PARA
4 GND
5 H SAW
6 GND
7 FAN PROT
8 H STOP
9 V STOP
10 POWER CONT
11 HV PROT
12 ΣIK
13 ABL
TO DM BOARD DM-29
R127 100
R128 100
L3 90µH
L4 90µH
L5 45µH
L6 45µH
X1 495K
B-SS1557<U/C>-PA.

• PA BOARD WAVEFORMS



PA [HIGH VOLTAGE REG] PB [FBT] PC [CONV OUT]

– PA BOARD –

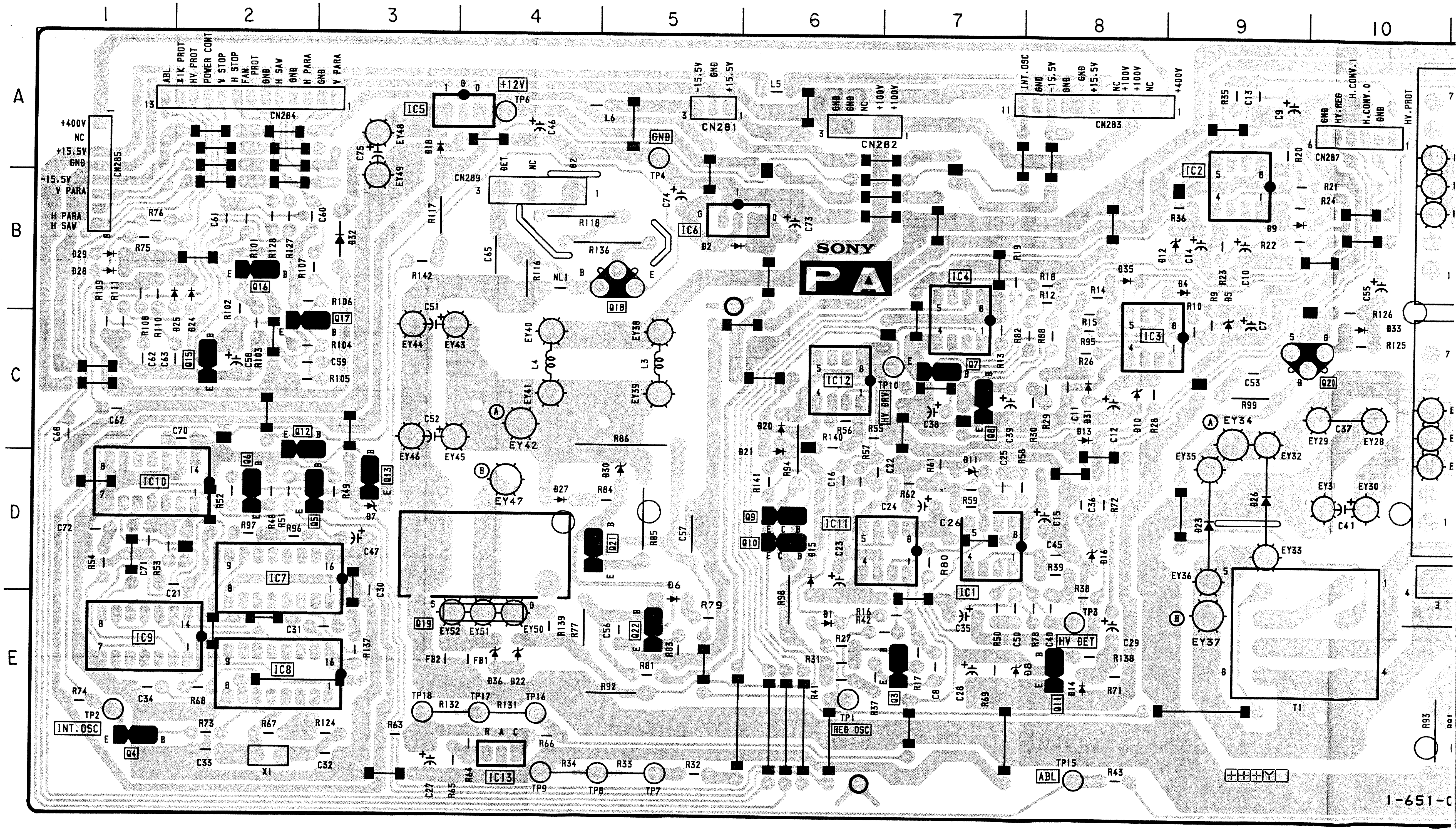
PA BOARD

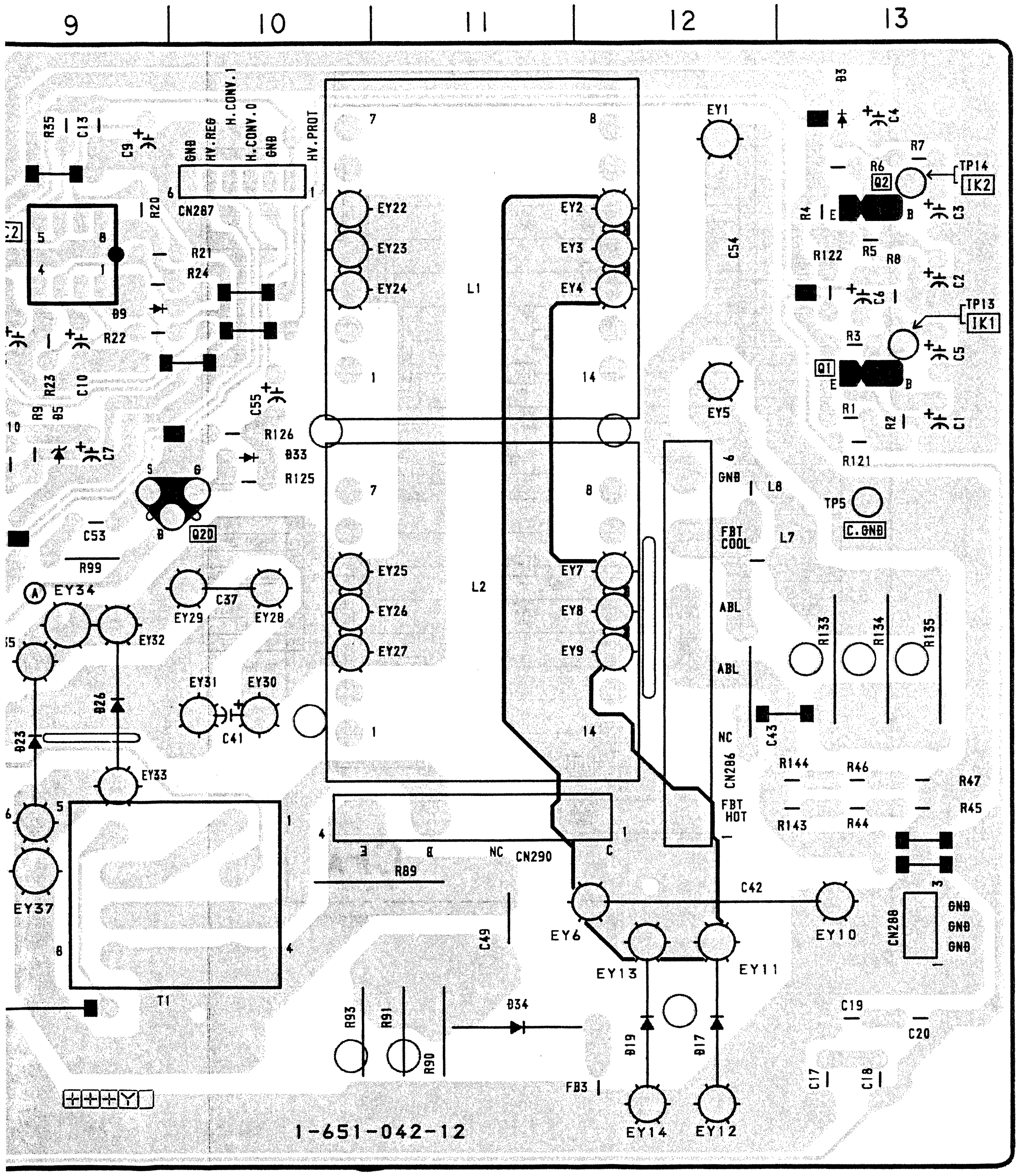
IC	
IC1	D – 7
IC2	A – 9
IC3	C – 8
IC4	B – 7
IC5	A – 3
IC6	B – 5
IC7	D – 2
IC8	E – 2
IC9	E – 1
IC10	D – 1
IC11	D – 6
IC12	C – 6
IC13	E – 4

TRANSISTOR	
Q1	B – 13
Q2	A – 13
Q3	E – 7
Q4	E – 1
Q5	D – 2
Q6	D – 2
Q7	C – 6
Q8	C – 6
Q9	D – 6
Q10	D – 6
Q11	E – 8
Q12	C – 2
Q13	D – 3
Q15	C – 2
Q16	B – 2
Q17	C – 3
Q18	B – 5
Q19	E – 3
Q20	C – 10
Q21	D – 4
Q22	E – 5

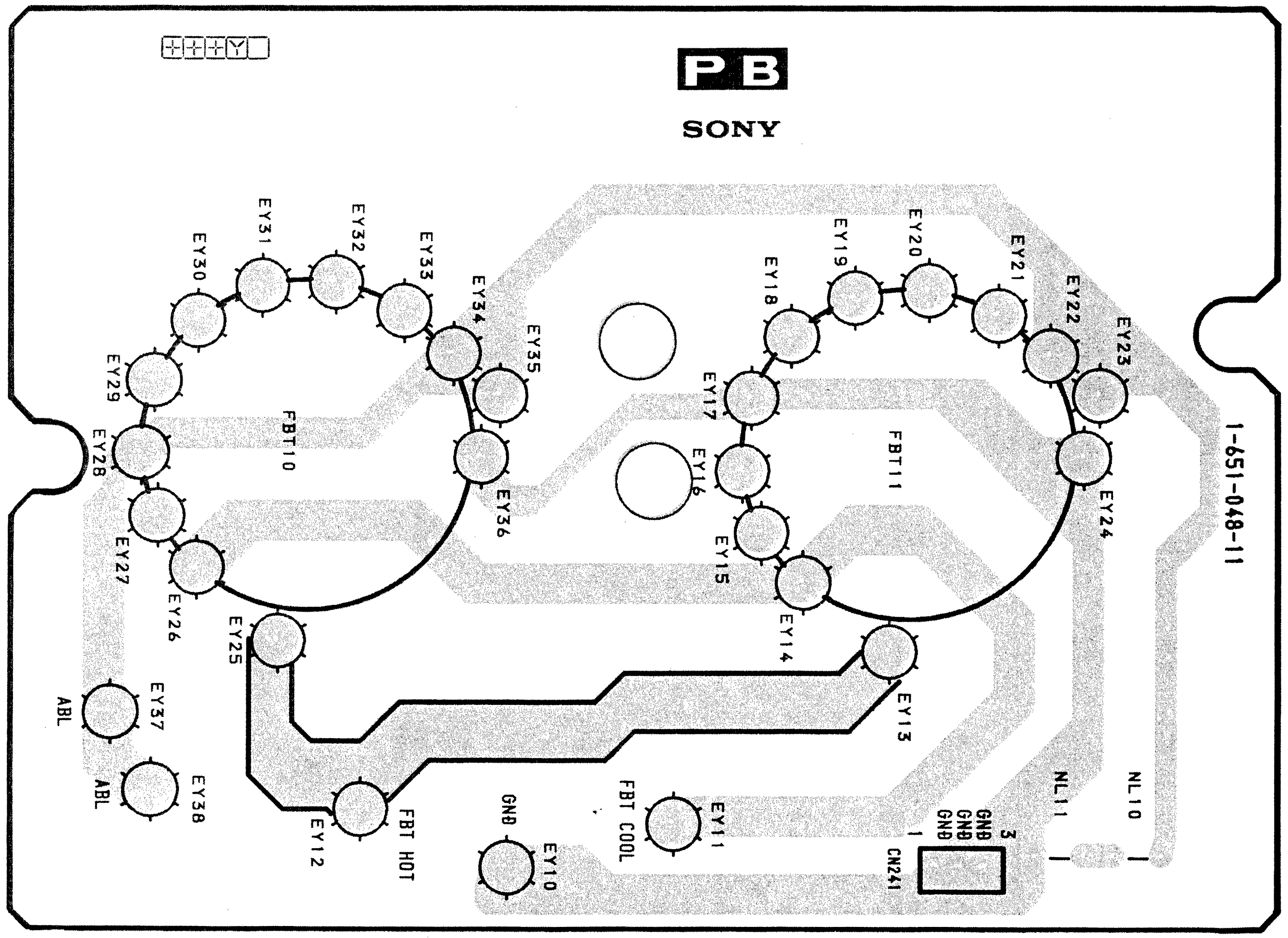
DIODE	
D1	E – 6
D2	B – 5
D3	A – 13
D4	B – 9
D5	B – 9
D6	D – 5
D7	D – 3
D8	E – 7
D9	B – 9
D10	C – 8
D11	D – 7
D12	B – 9
D13	C – 8
D14	E – 8
D15	D – 6
D16	D – 8
D17	E – 12
D18	A – 3
D19	E – 12
D20	C – 6
D21	C – 6
D22	E – 4
D23	D – 9
D24	B – 2
D25	B – 2
D26	D – 9
D27	D – 4
D28	B – 1
D29	B – 1
D30	D – 5
D31	C – 8
D32	B – 3
D33	C – 10
D34	E – 11
D35	B – 8
D36	E – 4

TEST POINT	
TP1	E – 6
TP2	E – 1
TP3	E – 8
TP4	A – 5
TP5	C – 13
TP6	A – 4
TP7	E – 5
TP8	E – 5
TP9	E – 4
TP10	C – 7
TP13	B – 13
TP14	A – 13
TP15	E – 8
TP16	E – 4
TP17	E – 4
TP18	E – 3

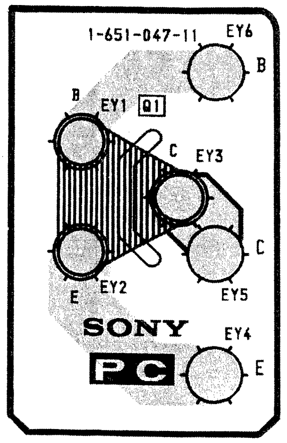

1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
CN284
CN285
CN289
CN281
CN282
CN283
CN287
+400V
NC
+15.5V
GND
-15.5V
V PARA
H PARA
H SAV
ABL
X1K PROT
HV PROT
POWER CONT
V STOP
H STOP
FAN PROT
H SAV
H PARA
V PARA
+12V
INT.OSC
+100V
HV.REG
H.CONV.1
H.CONV.0
HV.PROT
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
IC9
IC10
IC11
IC12
IC13
SONY
PA
HV BRV
HV DET
REG OSC
INT.OSC
ABL
T1
TP1
TP2
TP3
TP4
TP6
TP7
TP8
TP9
TP10
TP15
TP16
TP17
TP18
1-651-

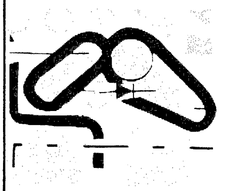

9
10
11
12
13
CN287
GND
HV.REG
H.CONV.1
H.CONV.0
GND
HV.PROT
L1
L2
EY1
EY2
EY3
EY4
EY5
EY6
EY7
EY8
EY9
EY10
EY11
EY12
EY13
EY14
EY22
EY23
EY24
EY25
EY26
EY27
EY28
EY29
EY30
EY31
EY32
EY33
EY34
EY37
TP14
IK2
TP13
IK1
TP5
C.GND
Q1
Q2
Q20
T1
CN286
CN288
CN290
GND
FBT COOL
FBT HOT
ABL
NC
1-651-042-12

– PB BOARD –


PB
SONY
FBT10
FBT11
1-651-048-11
CN241
ABL
FBT HOT
FBT COOL
GND
NL11
NL10

– PC BOARD –

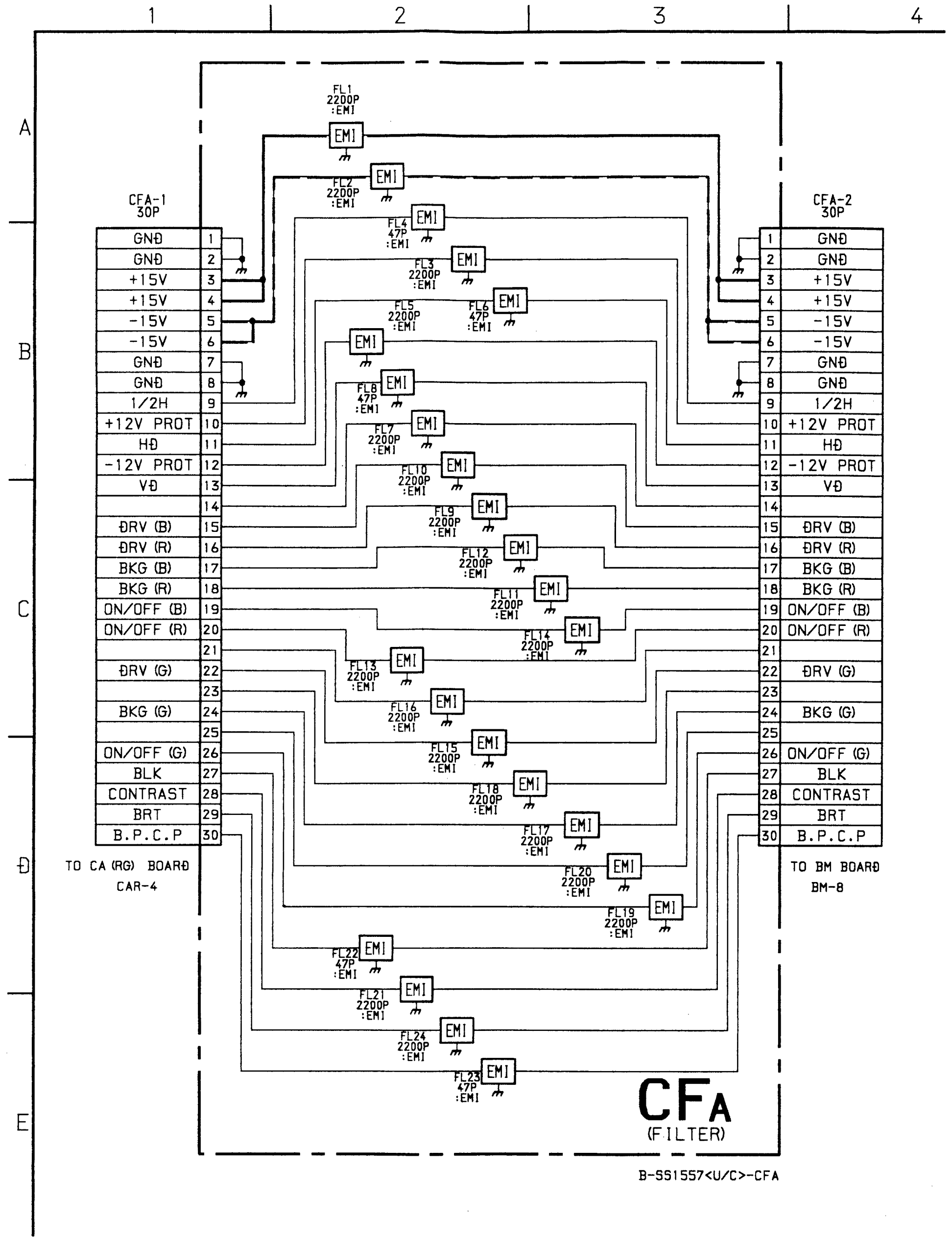

1-651-047-11
EY1
EY2
EY3
EY4
EY5
EY6
Q1
B
C
E
SONY
PC

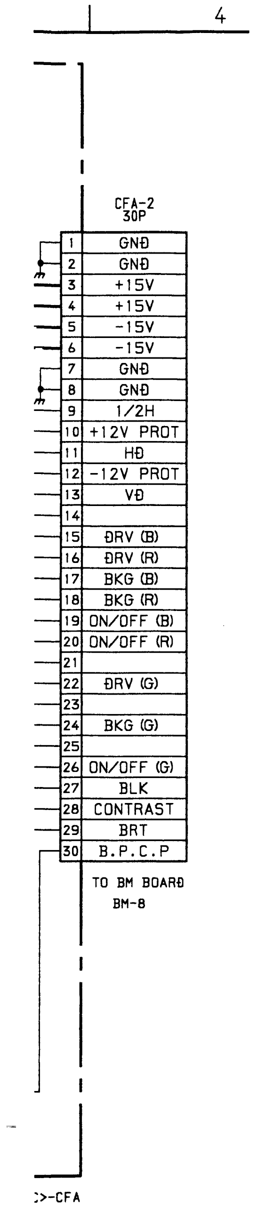


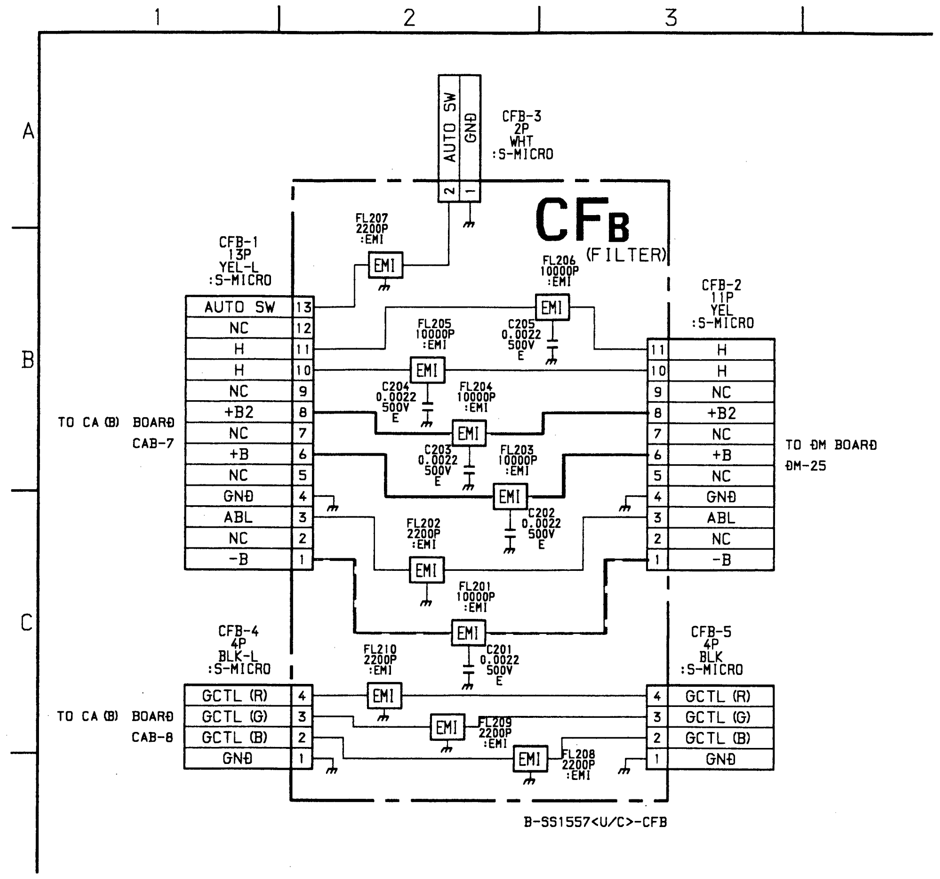
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

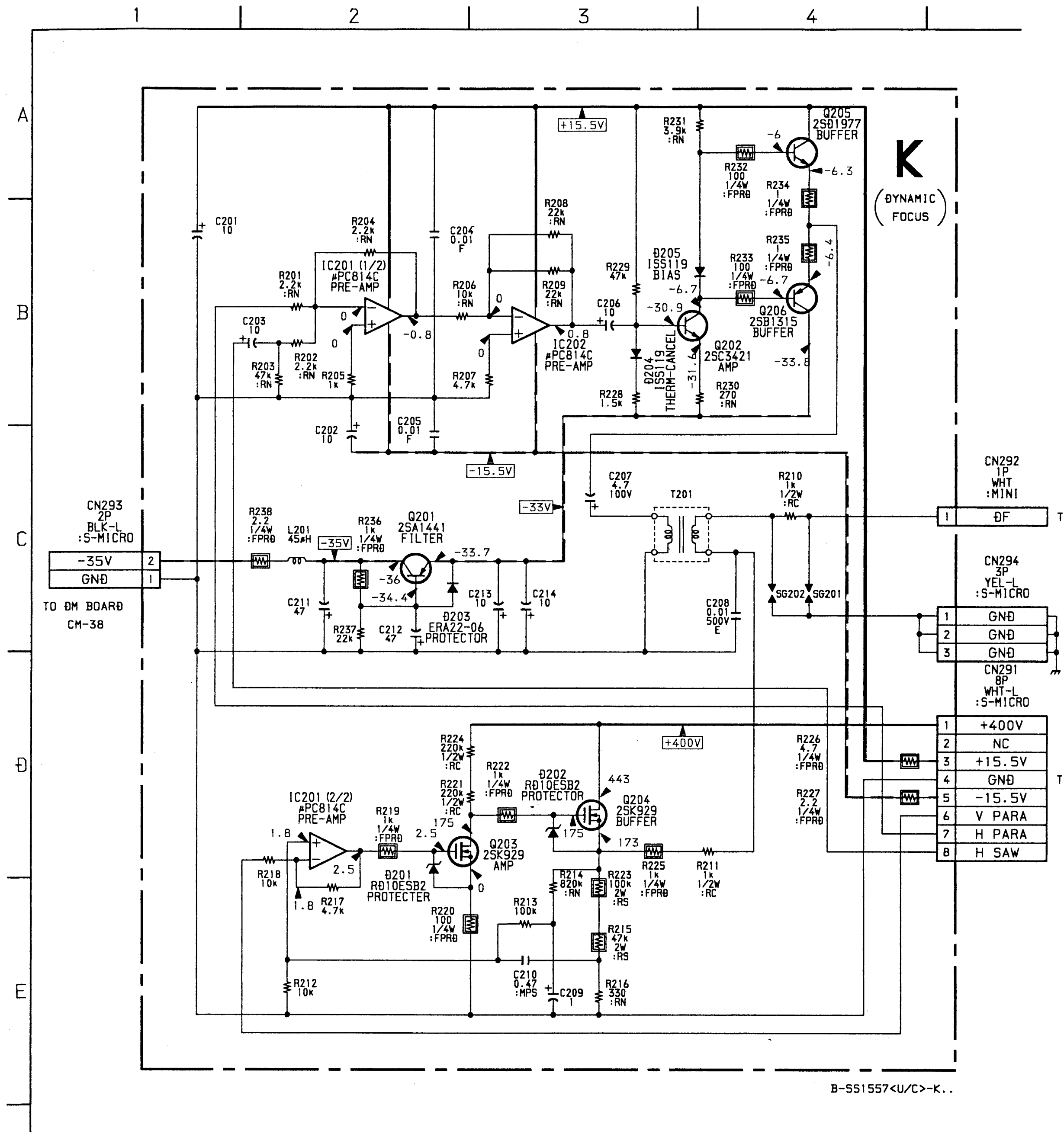
Schematic diagrams

CFA CFB K **boards** ➡


1
2
3
4
A
B
C
D
E
CFA-1
30P
1 GND
2 GND
3 +15V
4 +15V
5 -15V
6 -15V
7 GND
8 GND
9 1/2H
10 +12V PROT
11 HD
12 -12V PROT
13 VD
14
15 DRV (B)
16 DRV (R)
17 BKG (B)
18 BKG (R)
19 ON/OFF (B)
20 ON/OFF (R)
21
22 DRV (G)
23
24 BKG (G)
25
26 ON/OFF (G)
27 BLK
28 CONTRAST
29 BRT
30 B.P.C.P
TO CA (RG) BOARD
CAR-4
CFA-2
30P
TO BM BOARD
BM-8
FL1 2200P :EMI
FL2 2200P :EMI
FL3 2200P :EMI
FL4 47P :EMI
FL5 2200P :EMI
FL6 47P :EMI
FL7 2200P :EMI
FL8 47P :EMI
FL9 2200P :EMI
FL10 2200P :EMI
FL11 2200P :EMI
FL12 2200P :EMI
FL13 2200P :EMI
FL14 2200P :EMI
FL15 2200P :EMI
FL16 2200P :EMI
FL17 2200P :EMI
FL18 2200P :EMI
FL19 2200P :EMI
FL20 2200P :EMI
FL21 2200P :EMI
FL22 47P :EMI
FL23 47P :EMI
FL24 2200P :EMI
EMI
CFA
(FILTER)
B-SS1557<U/C>-CFA

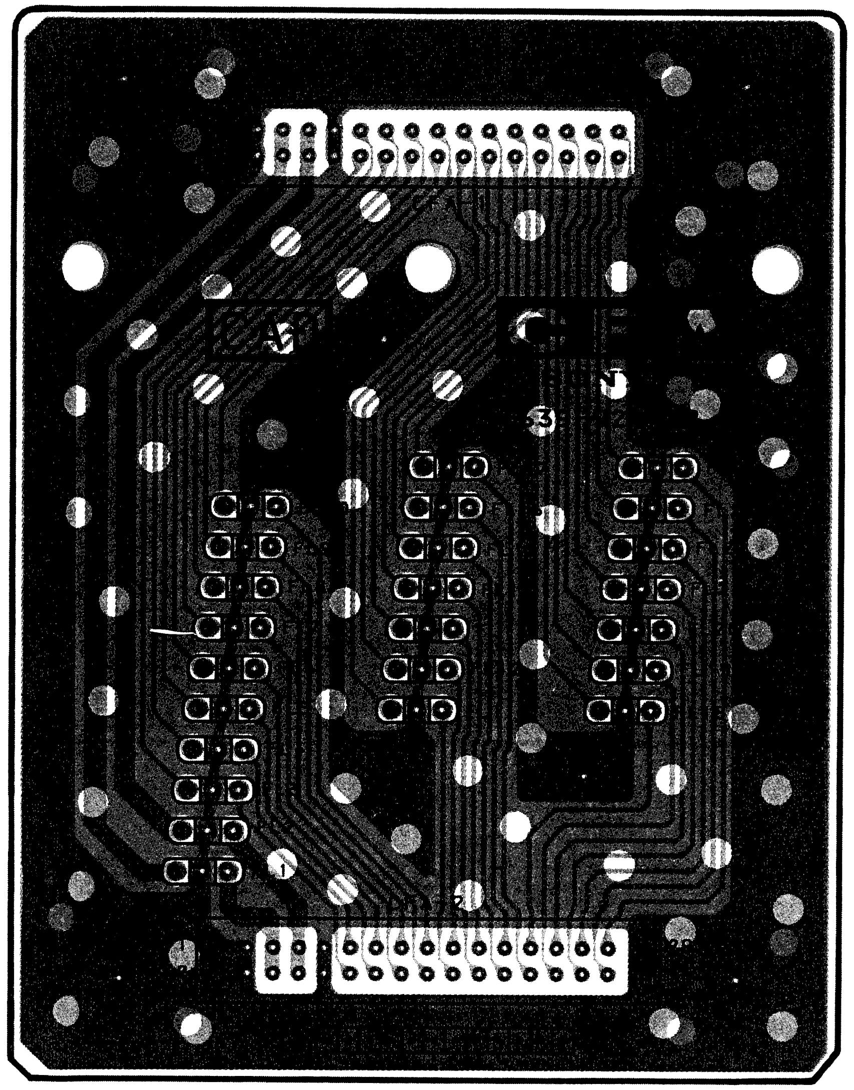

4
CFA-2
30P
1 GND
2 GND
3 +15V
4 +15V
5 -15V
6 -15V
7 GND
8 GND
9 1/2H
10 +12V PROT
11 HD
12 -12V PROT
13 VD
14
15 DRV (B)
16 DRV (R)
17 BKG (B)
18 BKG (R)
19 ON/OFF (B)
20 ON/OFF (R)
21
22 DRV (G)
23
24 BKG (G)
25
26 ON/OFF (G)
27 BLK
28 CONTRAST
29 BRT
30 B.P.C.P
TO BM BOARD
BM-8
>-CFA


1
2
3
A
B
C
CFB
(FILTER)
AUTO SW
GND
CFB-3
2P
WHT
:S-MICRO
CFB-1
13P
YEL-L
:S-MICRO
AUTO SW
NC
H
H
NC
+B2
NC
+B
NC
GND
ABL
NC
-B
CFB-2
11P
YEL
:S-MICRO
H
H
NC
+B2
NC
+B
NC
GND
ABL
NC
-B
TO CA (B) BOARD
CAB-7
TO DM BOARD
DM-25
FL207 2200P :EMI
FL206 10000P :EMI
FL205 10000P :EMI
C205 0.0022 500V E
C204 0.0022 500V E
FL204 10000P :EMI
C203 0.0022 500V E
FL203 10000P :EMI
FL202 2200P :EMI
C202 0.0022 500V E
FL201 10000P :EMI
C201 0.0022 500V E
FL210 2200P :EMI
FL209 2200P :EMI
FL208 2200P :EMI
EMI
CFB-4
4P
BLK-L
:S-MICRO
GCTL (R)
GCTL (G)
GCTL (B)
GND
CFB-5
4P
BLK
:S-MICRO
GCTL (R)
GCTL (G)
GCTL (B)
GND
TO CA (B) BOARD
CAB-8
B-SS1557<U/C>-CFB

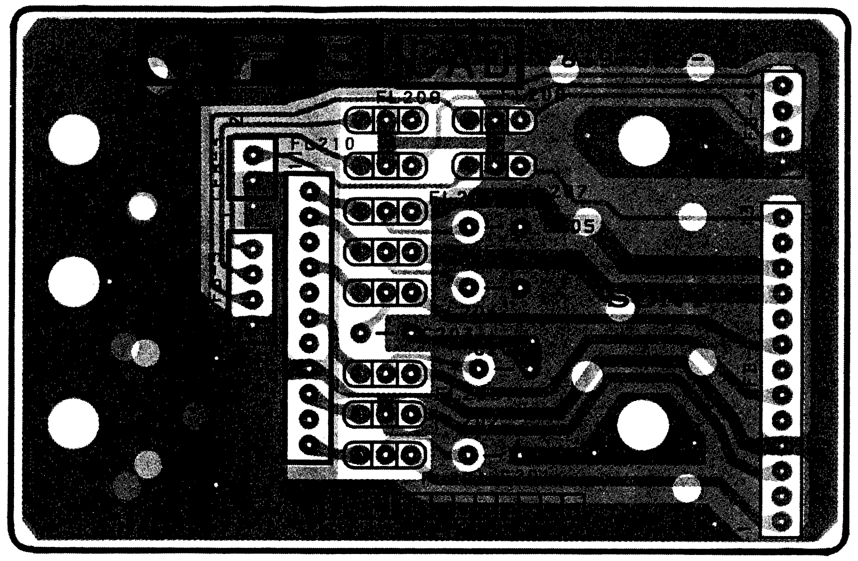

1
2
3
4
A
B
C
D
E
K
(DYNAMIC FOCUS)
+15.5V
-15.5V
-33V
-35V
+400V
C201 10
R204 2.2k :RN
IC201 (1/2) μPC814C PRE-AMP
R201 2.2k :RN
C203 10
R202 2.2k :RN
R203 47k :RN
R205 1k
C202 10
C205 0.01 F
C204 0.01 F
R206 10k :RN
R208 22k :RN
R209 22k :RN
R207 4.7k
IC202 μPC814C PRE-AMP
C206 10
R229 47k
D205 1SS119 BIAS
D204 1SS119 THERM. CANCEL
R228 1.5k
Q202 2SC3421 AMP
R230 270 :RN
R231 3.9k :RN
R232 100 1/4W :FPRD
Q205 2SD1977 BUFFER
R234 1 1/4W :FPRD
R235 1
R233 100 1/4W :FPRD
Q206 2SB1315 BUFFER
-6
-6.3
-6.4
-6.7
-30.9
-31.4
-33.8
-0.8
0.8
0
CN293 2P BLK-L :S-MICRO
-35V
GND
TO DM BOARD
CM-38
R238 2.2 1/4W :FPRD
L201 45μH
R236 1k 1/4W :FPRD
Q201 2SA1441 FILTER
-33.7
-36
-34.4
D203 ERA22-06 PROTECTOR
C211 47
R237 22k
C212 47
C213 10
C214 10
C207 4.7 100V
T201
R210 1k 1/2W :RC
C208 0.01 500V E
SG202
SG201
CN292 1P WHT :MINI
DF
TO FOCUS PACK
CN294 3P YEL-L :S-MICRO
GND
GND
GND
CN291 8P WHT-L :S-MICRO
+400V
NC
+15.5V
GND
-15.5V
V PARA
H PARA
H SAW
TO PA BOARD
CN285
R224 220k 1/2W :RC
R222 1k 1/4W :FPRD
D202 RD10ESB2 PROTECTOR
Q204 2SK929 BUFFER
443
R221 220k 1/2W :RC
IC201 (2/2) μPC814C PRE-AMP
R219 1k 1/4W :FPRD
175
173
2.5
1.8
Q203 2SK929 AMP
D201 RD10ESB2 PROTECTER
R218 10k
R217 4.7k
R220 100 1/4W :FPRD
R213 100k
R214 820k :RN
R223 100k 2W :RS
R225 1k 1/4W :FPRD
R211 1k 1/2W :RC
R226 4.7 1/4W :FPRD
R227 2.2 1/4W :FPRD
R215 47k 2W :RS
C210 0.47 :MPS
C209 1
R216 330 :RN
R212 10k
B-SS1557<U/C>-K..

CFA [FILTER] CFB [FILTER] K [DYNAMIC FOCUS]

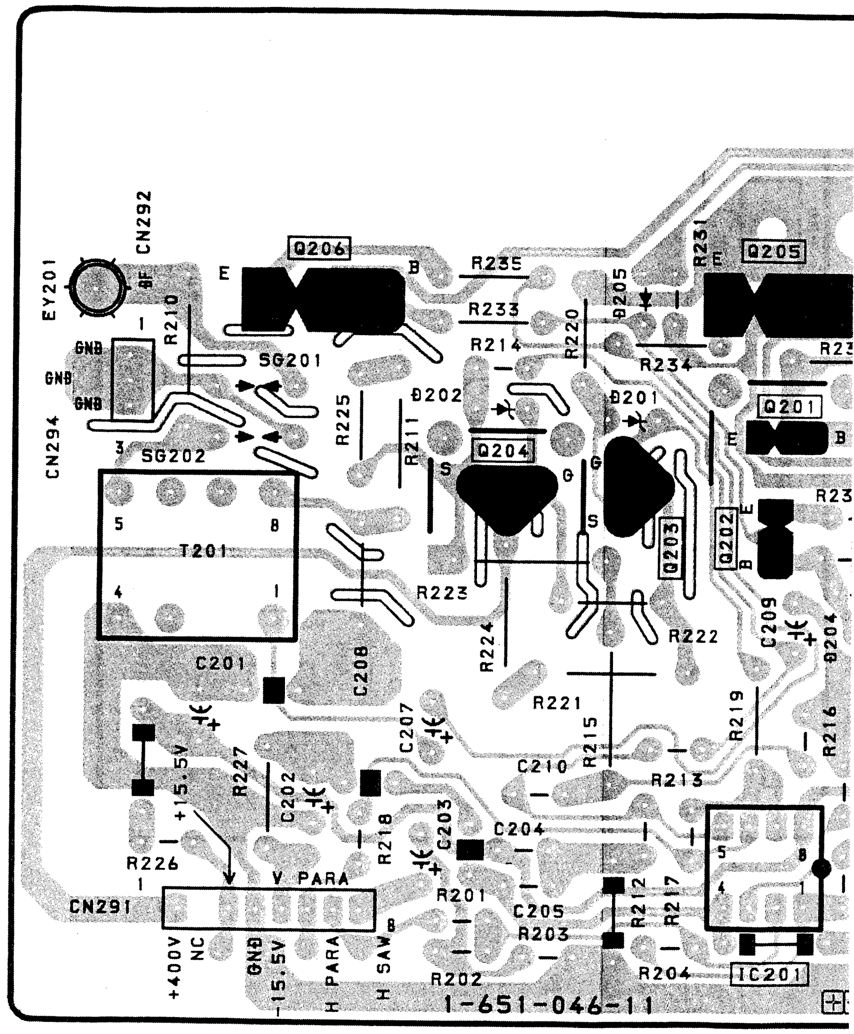
– CFA BOARD –



– CFB BOARD –


FL209
FL210

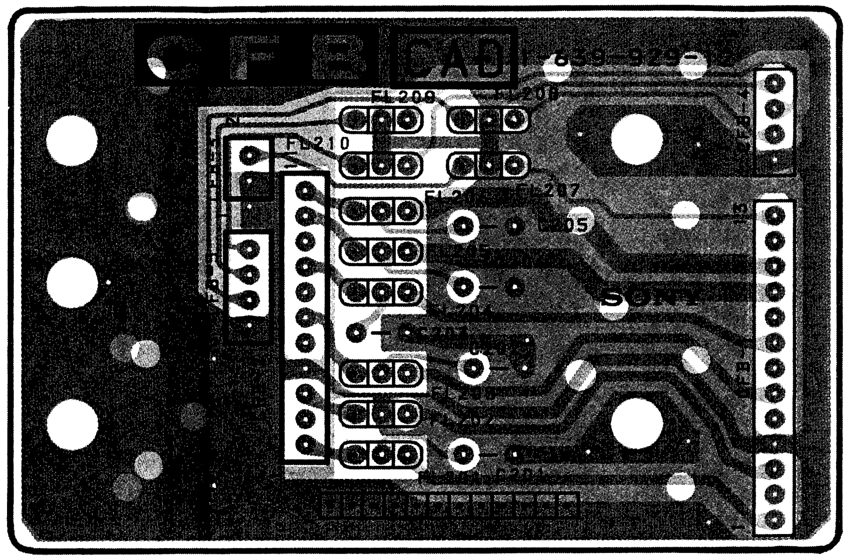
– K BOARD –


EY201
CN292
Q206
E
B
R235
R233
R214
R220
Q205
R231
R234
Q201
R210
SG201
D202
D201
CN294
GND
GND
GND
SG202
R225
R211
Q204
Q203
Q202
5
8
T201
4
1
R223
R224
R222
C209
D204
C201
C208
C207
R221
R215
R219
R216
C210
R213
+15.5V
R227
C202
R218
C203
C204
R226
V PARA
R201
R212
R217
CN291
C205
R203
R202
R204
IC201
+400V
NC
GND
-15.5V
H PARA
H SAW
1-651-046-11

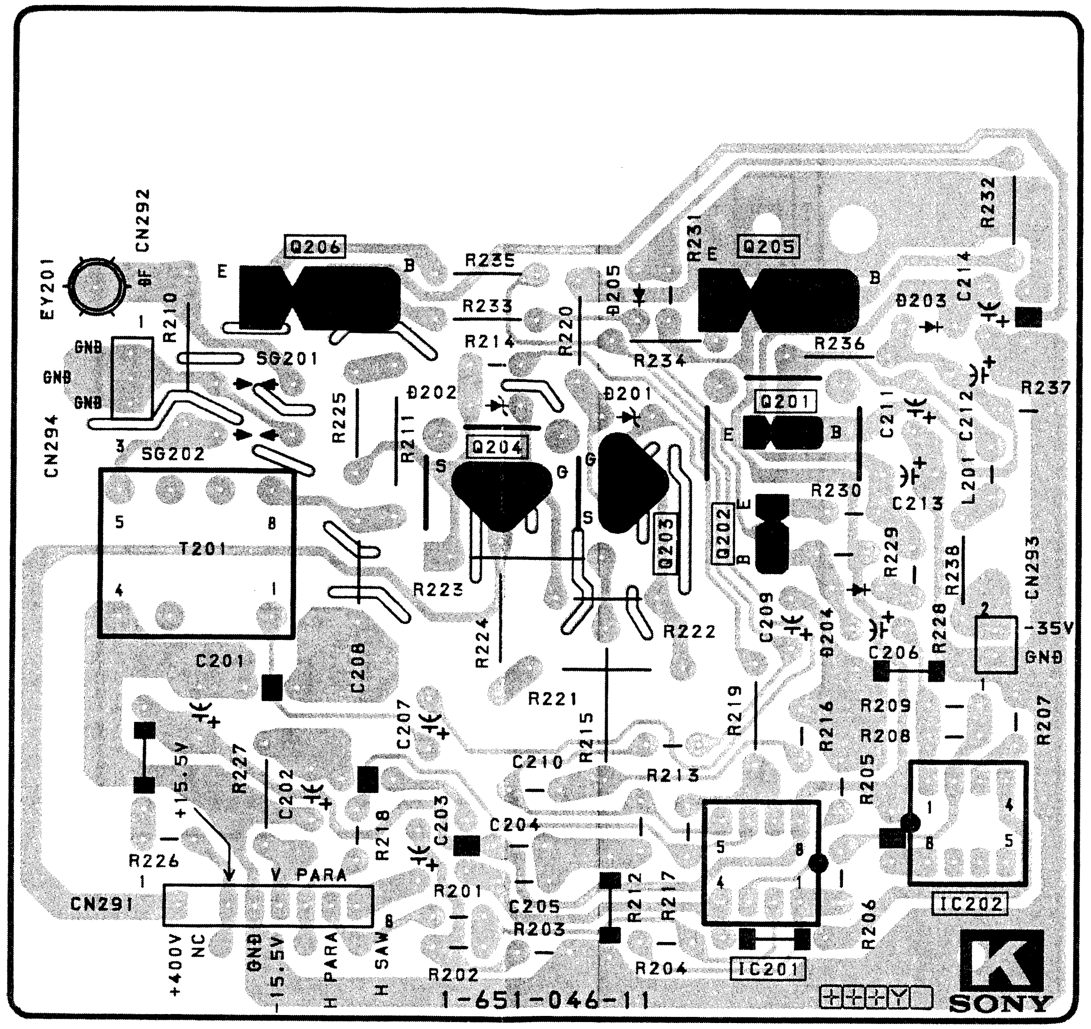
Note :

- ░ : Pattern from the side which enables seeing.
- ▓ : Pattern of the rear side.

– CFB BOARD –


CFB
CAD
FL209
FL210
SONY

– K BOARD –

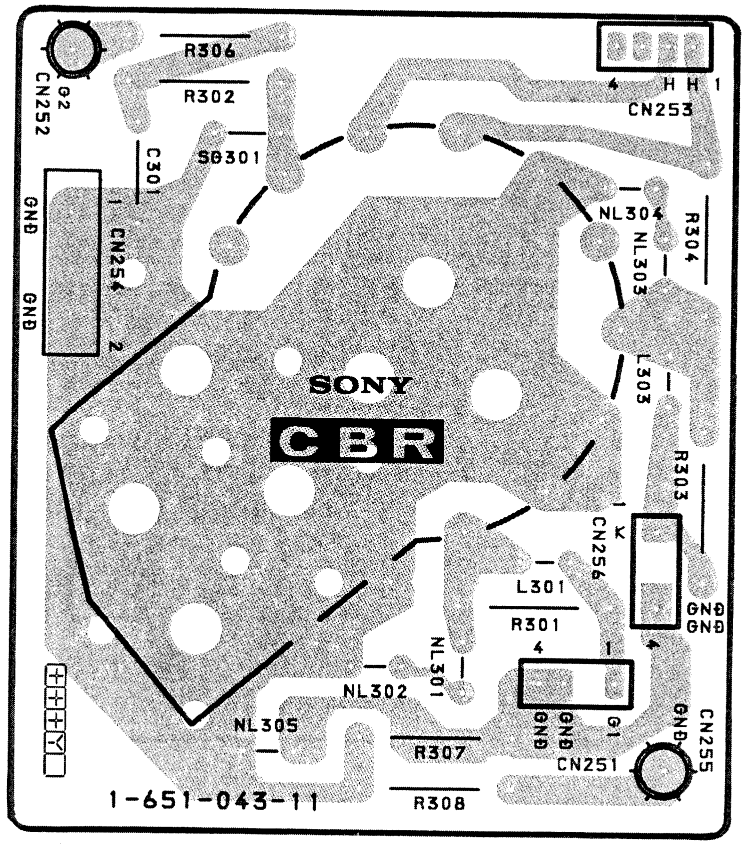

EY201
CN292
CN294
Q206
Q205
Q201
Q204
Q203
Q202
R235
R233
R214
R220
D205
R231
D203
C214
R232
R236
R237
SG201
SG202
D202
D201
R234
R225
R211
R230
C211
C212
C213
L201
T201
R223
R222
R224
R229
R238
R228
C209
D204
C206
CN293
-35V
GND
C201
C208
R221
R219
R216
R209
R208
R207
C207
R215
C210
R213
R205
+15.5V
R227
C202
R218
C203
C204
IC202
R226
V PARA
R201
R212
R217
C205
R203
R206
CN291
+400V
NC
GND
-15.5V
H PARA
H SAW
R202
R204
IC201
1-651-046-11
K
SONY

Note :

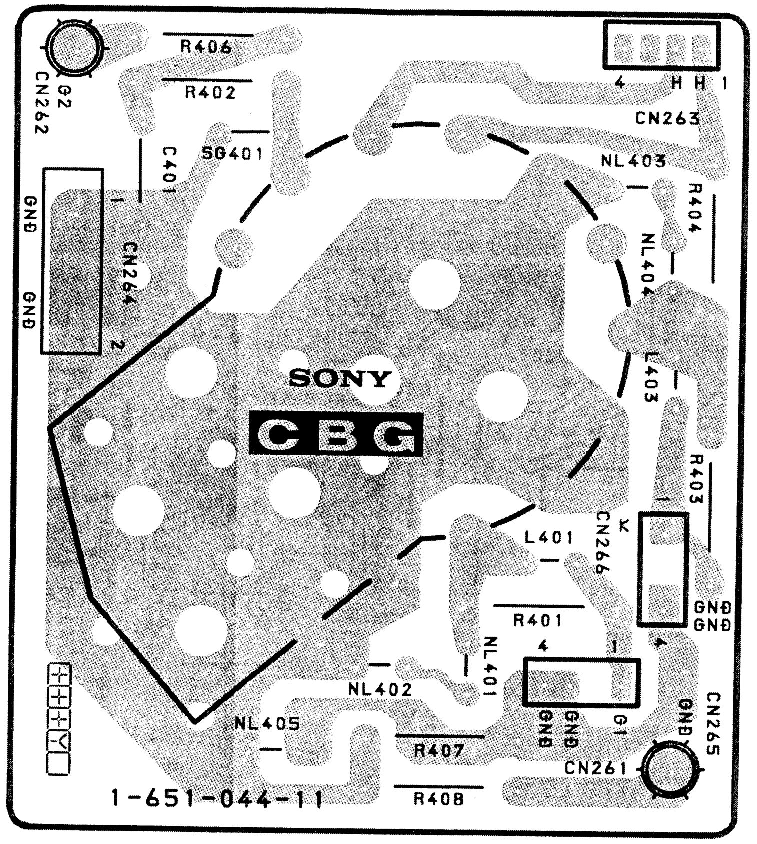
- ▒ : Pattern from the side which enables seeing.
- ▓ : Pattern of the rear side.

CBR [CRT SOCKET] **CBG** [CRT SOCKET] **CBB** [CRT SOCKET] **QM** [MOTHER BOARD]

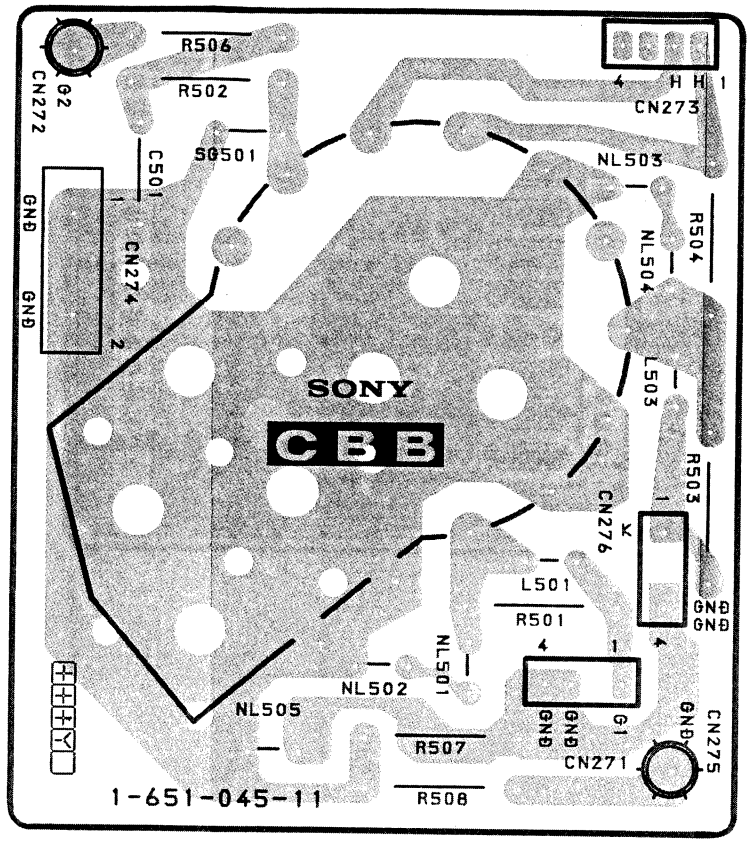
– CBR BOARD –


R306
R302
G2
CN252
C301
SG301
GND
GND
1
CN254
2
4 H H 1
CN253
NL304
NL303
R304
L303
R303
SONY
CBR
1
K
CN256
L301
R301
4
1
GND
GND
NL301
NL302
NL305
R307
R308
GND
GND
G1
CN251
GND
CN255
1-651-043-11

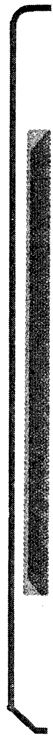
– CBG BOARD –


R406
R402
G2
CN262
C401
SG401
GND
GND
1
CN264
2
4 H H 1
CN263
NL403
NL404
R404
L403
R403
SONY
CBG
1
K
CN266
L401
R401
4
1
GND
GND
NL401
NL402
NL405
R407
R408
GND
GND
G1
CN261
GND
CN265
1-651-044-11

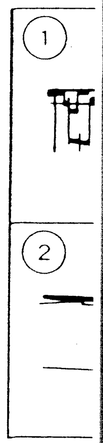
– CBB BOARD –


R506
R502
G2
CN272
C501
SG501
GND
GND
1
CN274
2
4 H H 1
CN273
NL503
NL504
R504
L503
R503
SONY
CBB
1
K
CN276
L501
R501
4
1
GND
GND
NL501
NL502
NL505
R507
R508
GND
GND
G1
CN271
GND
CN275
1-651-045-11

– Q

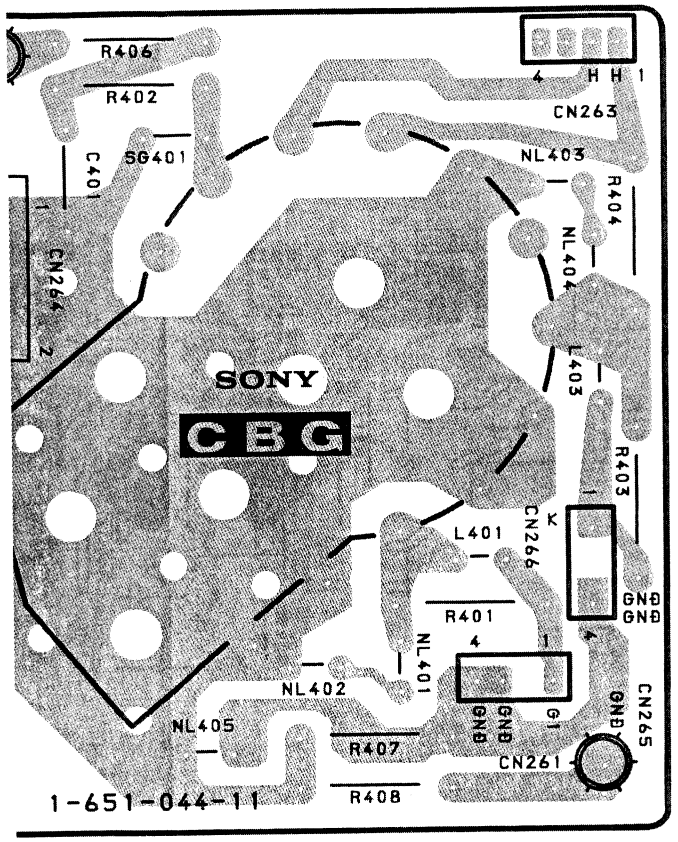


• CBR
WAV

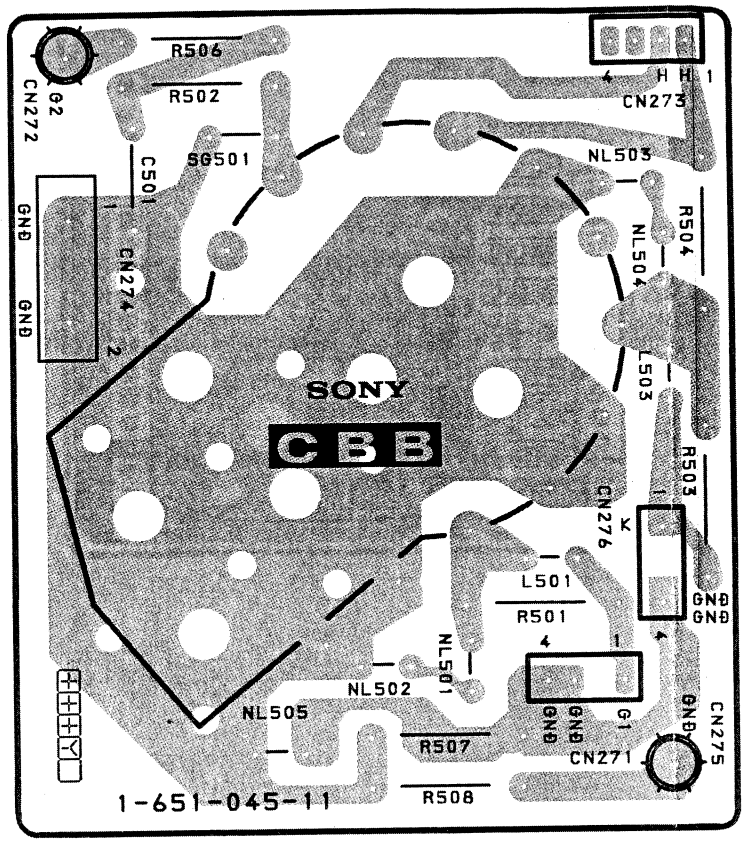


QM [MOTHER BOARD]

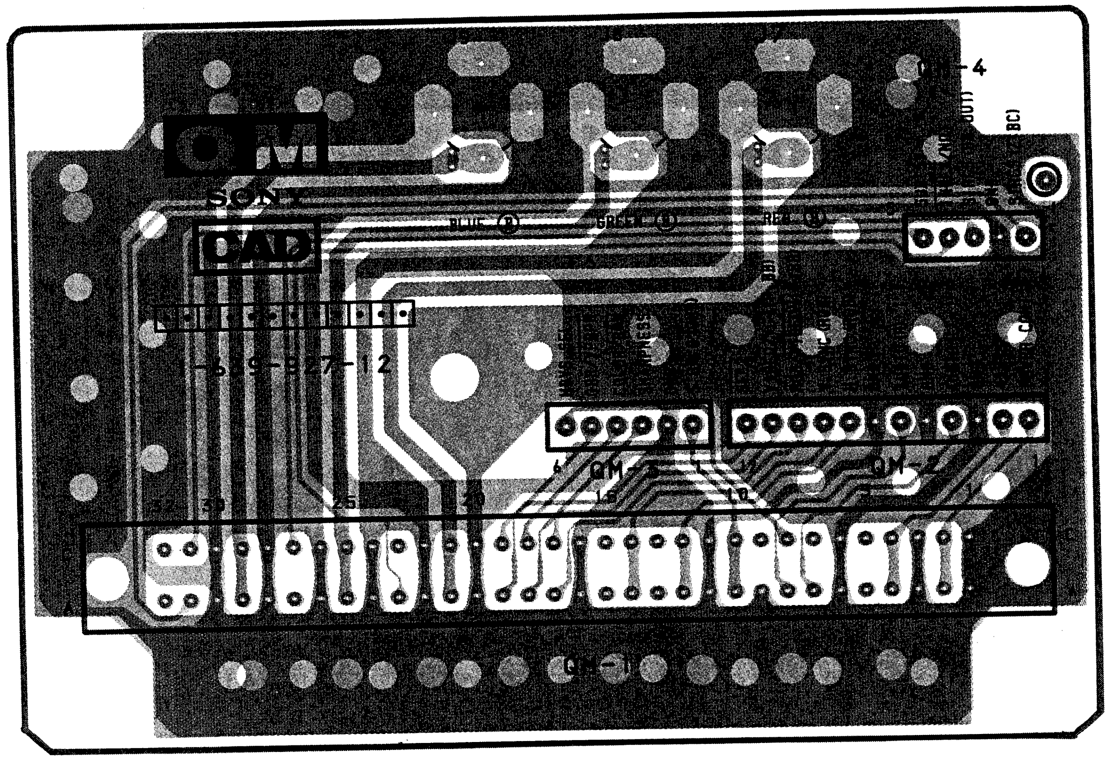
G BOARD –


R406
R402
CN263
4 H H 1
C401
SG401
NL403
R404
CN264
2
NL404
L403
SONY
CBG
R403
K
CN266
L401
GND
GND
R401
4 1
NL401
NL402
NL405
GND
GND
GND
G1
GND
CN265
R407
CN261
R408
1-651-044-11

– CBB BOARD –


R506
G2
CN272
R502
4 H H 1
CN273
C501
SG501
NL503
GND
GND
CN274
2
R504
NL504
SONY
CBB
L503
R503
CN276
K
L501
R501
GND
GND
4 1
NL501
NL502
NL505
GND
GND
G1
GND
CN275
R507
CN271
R508
1-651-045-11

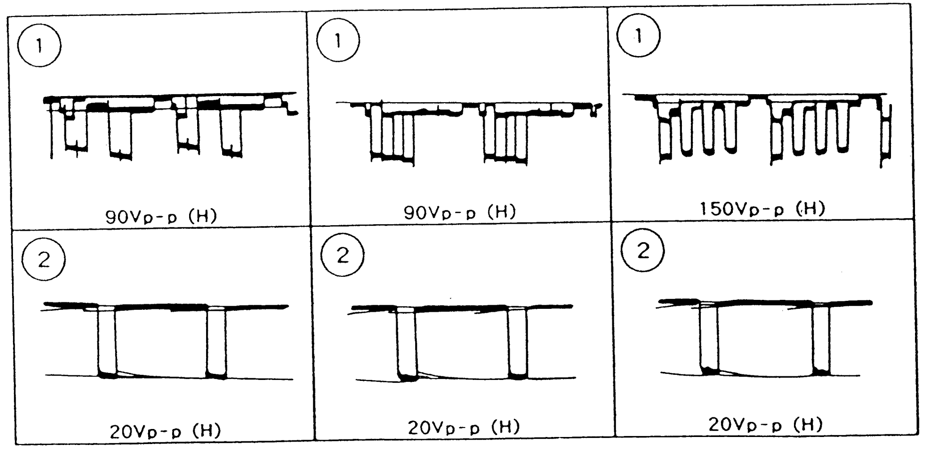
– QM BOARD –

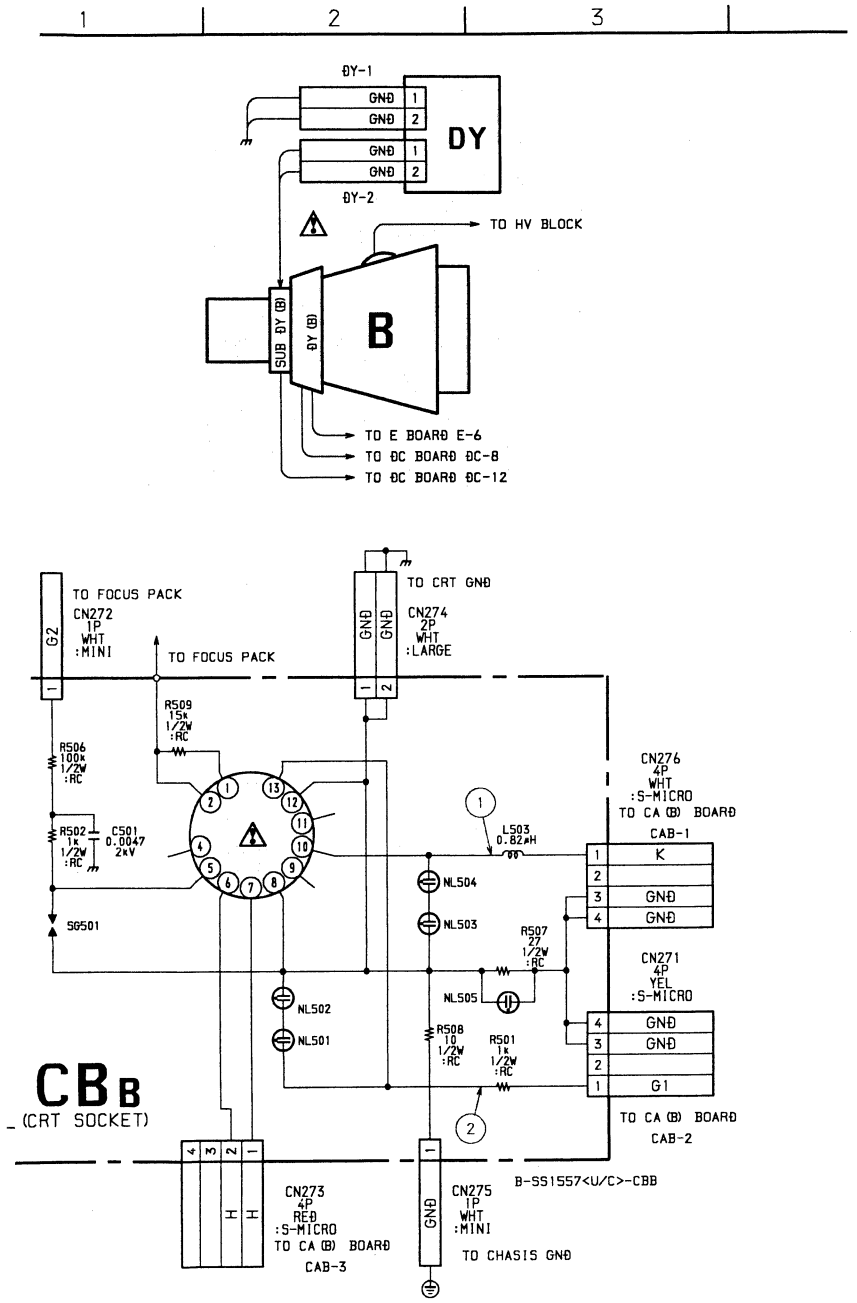

QM
SONY
CAD
QM-4
BLUE ⓑ
GREEN ⓑ
RED ⓑ
1-639-927-12
QM-3
6
1
QM-2
15
10
5
30
25
20
QM-1

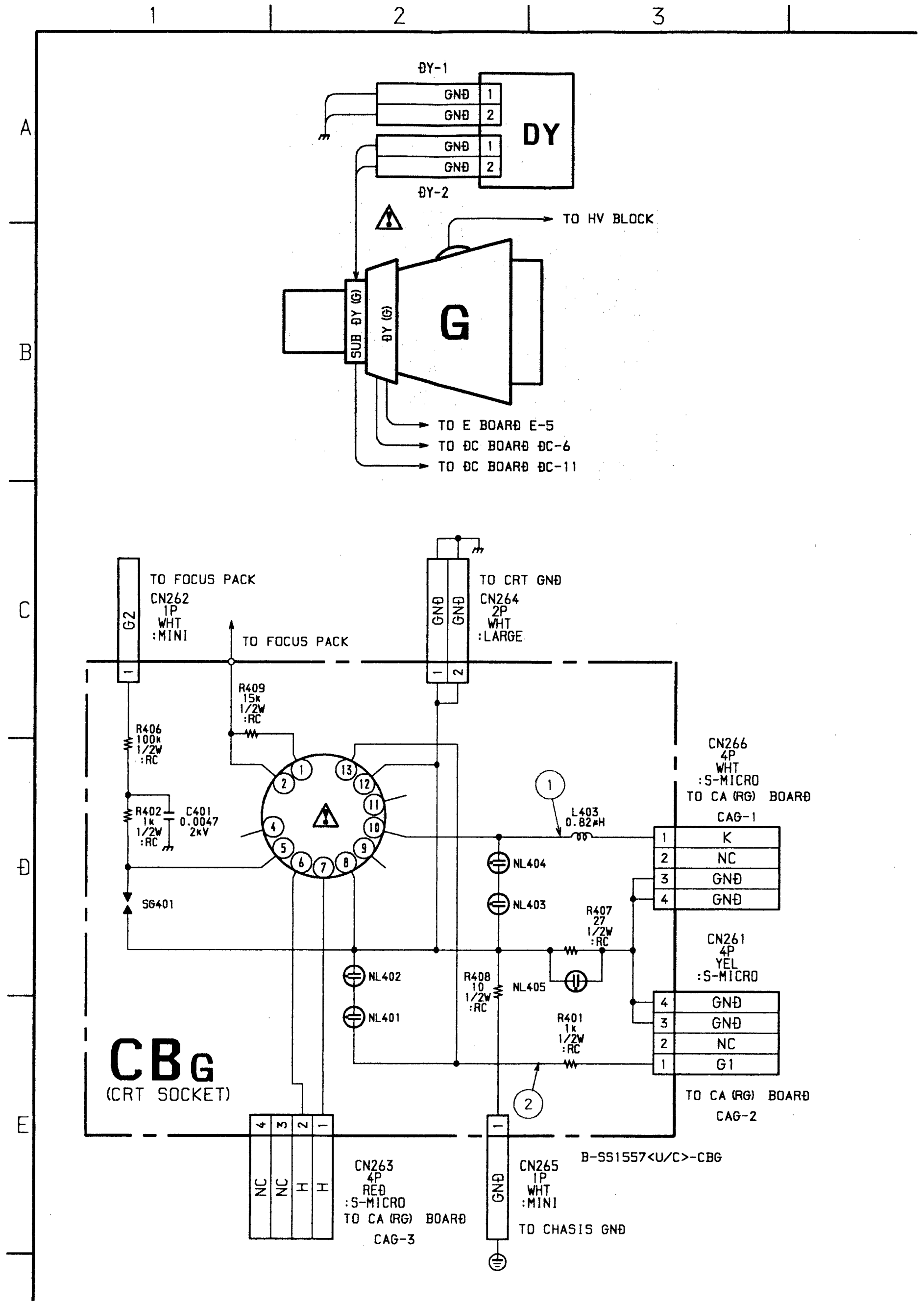
Note :

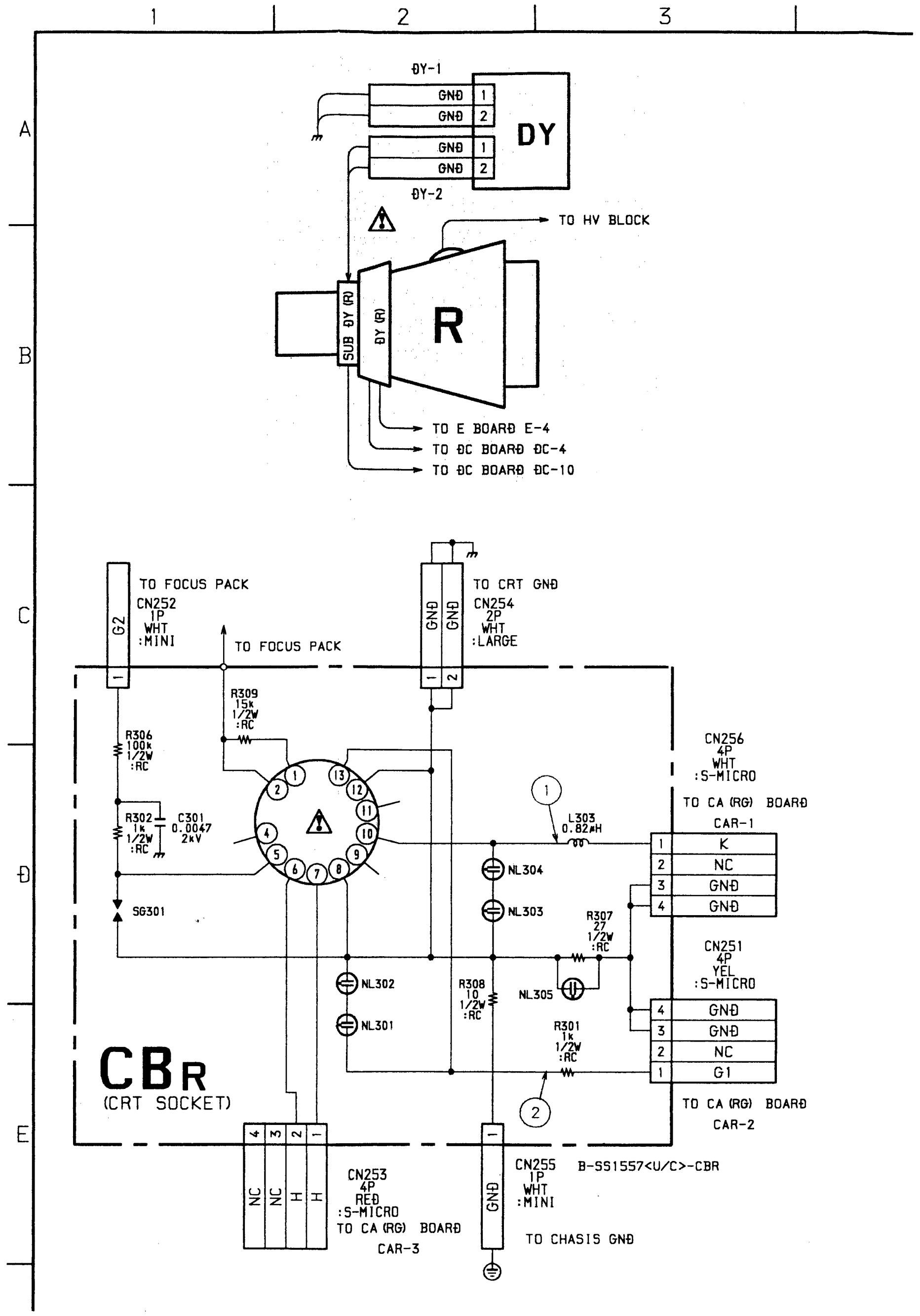
- ▨ : Pattern from the side which enables seeing.
- ▩ : Pattern of the rear side.

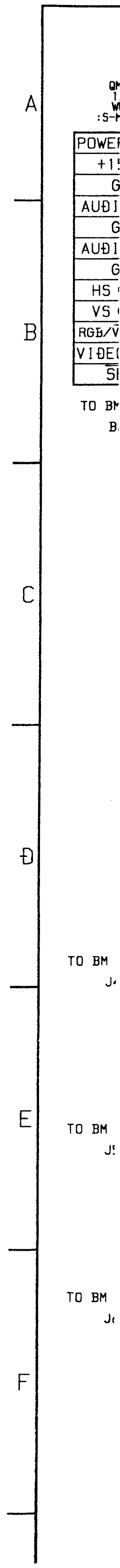
- **CBR BOARD WAVEFORMS**
- **CBG BOARD WAVEFORMS**
- **CBB BOARD WAVEFORMS**




1
2
3
DY-1
GND 1
GND 2
DY
GND 1
GND 2
DY-2
TO HV BLOCK
SUB DY (B)
DY (B)
B
TO E BOARD E-6
TO DC BOARD DC-8
TO DC BOARD DC-12
G2
TO FOCUS PACK
CN272 1P WHT :MINI
TO FOCUS PACK
GND GND
TO CRT GND
CN274 2P WHT :LARGE
R509 15k 1/2W :RC
R506 100k 1/2W :RC
R502 1k 1/2W :RC
C501 0.0047 2kV
SG501
①
L503 0.82µH
NL504
NL503
R507 27 1/2W :RC
NL505
NL502
NL501
R508 10 1/2W :RC
R501 1k 1/2W :RC
②
CN276 4P WHT :S-MICRO
TO CA (B) BOARD
CAB-1
1 K
2
3 GND
4 GND
CN271 4P YEL :S-MICRO
4 GND
3 GND
2
1 G1
TO CA (B) BOARD
CAB-2
CBB
(CRT SOCKET)
4 3 2 1
H H
CN273 4P RED :S-MICRO
TO CA (B) BOARD
CAB-3
GND
CN275 1P WHT :MINI
TO CHASIS GND
B-SS1557<U/C>-CBB

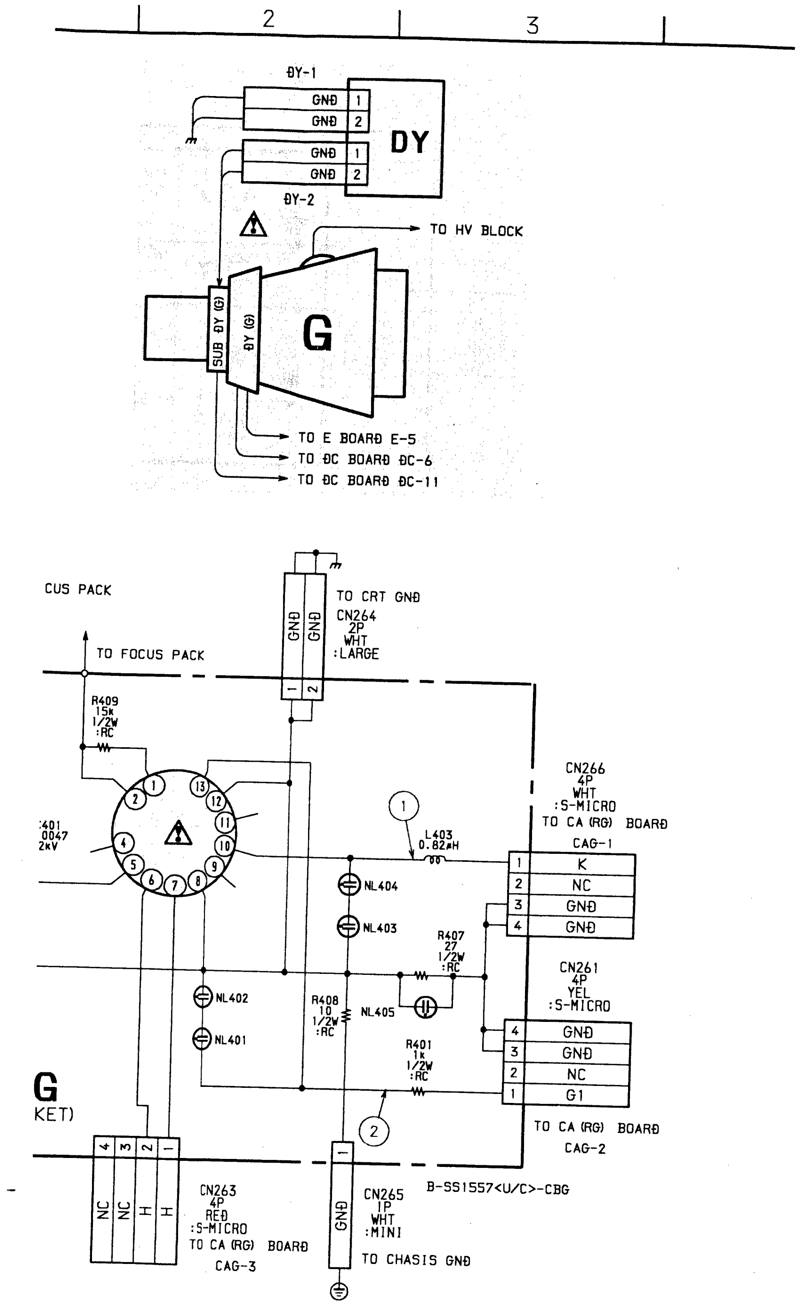

1
2
3
A
B
C
D
E
DY-1
GND 1
GND 2
DY
GND 1
GND 2
DY-2
TO HV BLOCK
SUB DY (G)
DY (G)
G
TO E BOARD E-5
TO DC BOARD DC-6
TO DC BOARD DC-11
G2
TO FOCUS PACK
CN262 1P WHT :MINI
TO FOCUS PACK
GND GND
TO CRT GND
CN264 2P WHT :LARGE
R409 15k 1/2W :RC
R406 100k 1/2W :RC
R402 1k 1/2W :RC
C401 0.0047 2kV
SG401
①
L403 0.82µH
NL404
NL403
R407 27 1/2W :RC
NL402
NL401
R408 10 1/2W :RC
NL405
R401 1k 1/2W :RC
②
CN266 4P WHT :S-MICRO
TO CA (RG) BOARD
CAG-1
1 K
2 NC
3 GND
4 GND
CN261 4P YEL :S-MICRO
4 GND
3 GND
2 NC
1 G1
TO CA (RG) BOARD
CAG-2
CBG
(CRT SOCKET)
4 3 2 1
NC NC H H
CN263 4P RED :S-MICRO
TO CA (RG) BOARD
CAG-3
GND
CN265 1P WHT :MINI
TO CHASIS GND
B-SS1557<U/C>-CBG

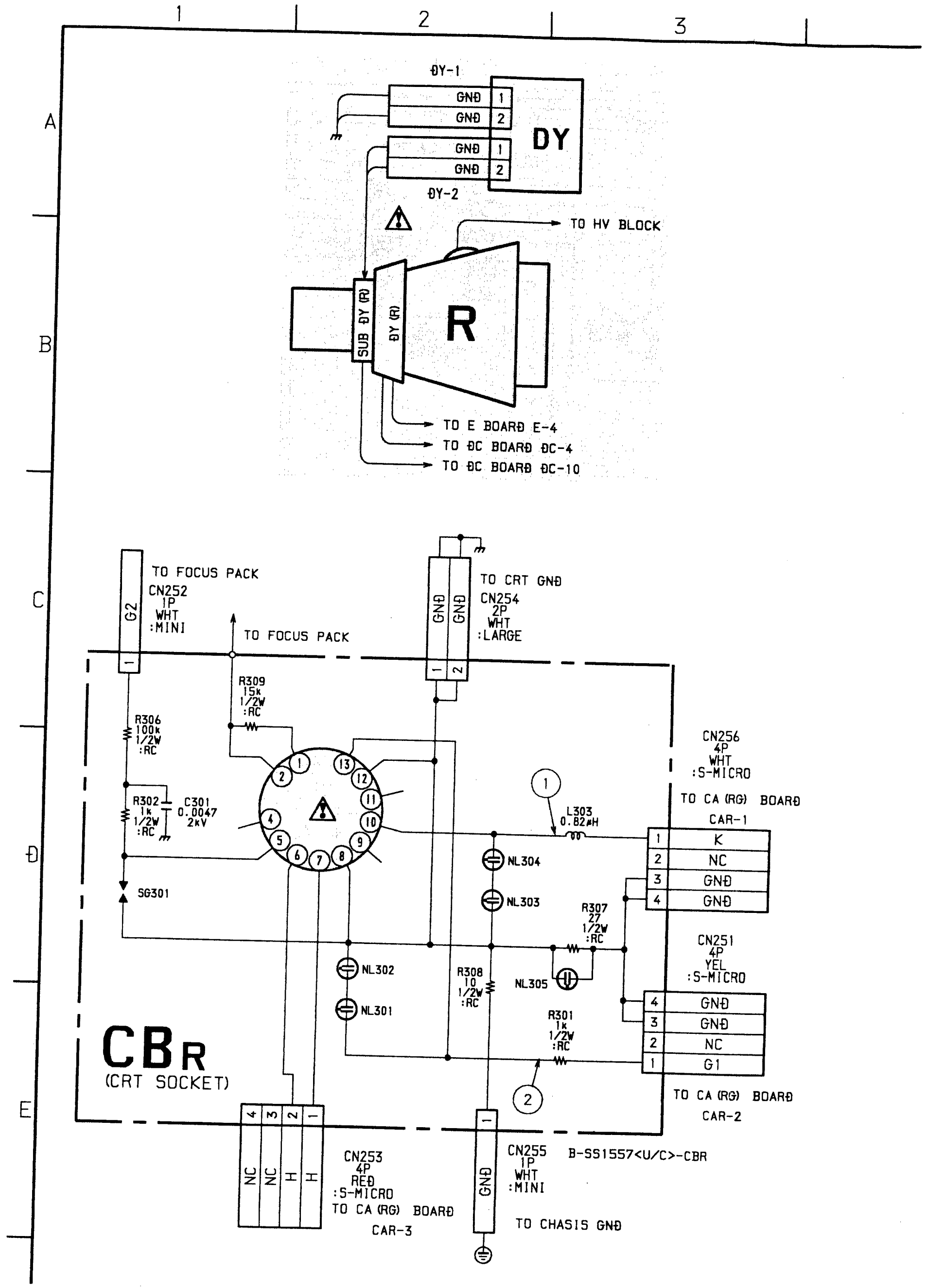

1
2
3
A
B
C
D
E
DY-1
GND 1
GND 2
DY
GND 1
GND 2
DY-2
TO HV BLOCK
SUB DY (R)
DY (R)
R
TO E BOARD E-4
TO DC BOARD DC-4
TO DC BOARD DC-10
G2
TO FOCUS PACK
CN252 1P WHT :MINI
TO FOCUS PACK
GND GND
TO CRT GND
CN254 2P WHT :LARGE
R309 15k 1/2W :RC
R306 100k 1/2W :RC
R302 1k 1/2W :RC
C301 0.0047 2kV
SG301
①
L303 0.82µH
NL304
NL303
R307 27 1/2W :RC
NL302
NL301
R308 10 1/2W :RC
NL305
R301 1k 1/2W :RC
②
CN256 4P WHT :S-MICRO
TO CA (RG) BOARD
CAR-1
1 K
2 NC
3 GND
4 GND
CN251 4P YEL :S-MICRO
4 GND
3 GND
2 NC
1 G1
TO CA (RG) BOARD
CAR-2
CBR
(CRT SOCKET)
4 3 2 1
NC NC H H
CN253 4P RED :S-MICRO
TO CA (RG) BOARD
CAR-3
GND
CN255 1P WHT :MINI
TO CHASIS GND
B-SS1557<U/C>-CBR

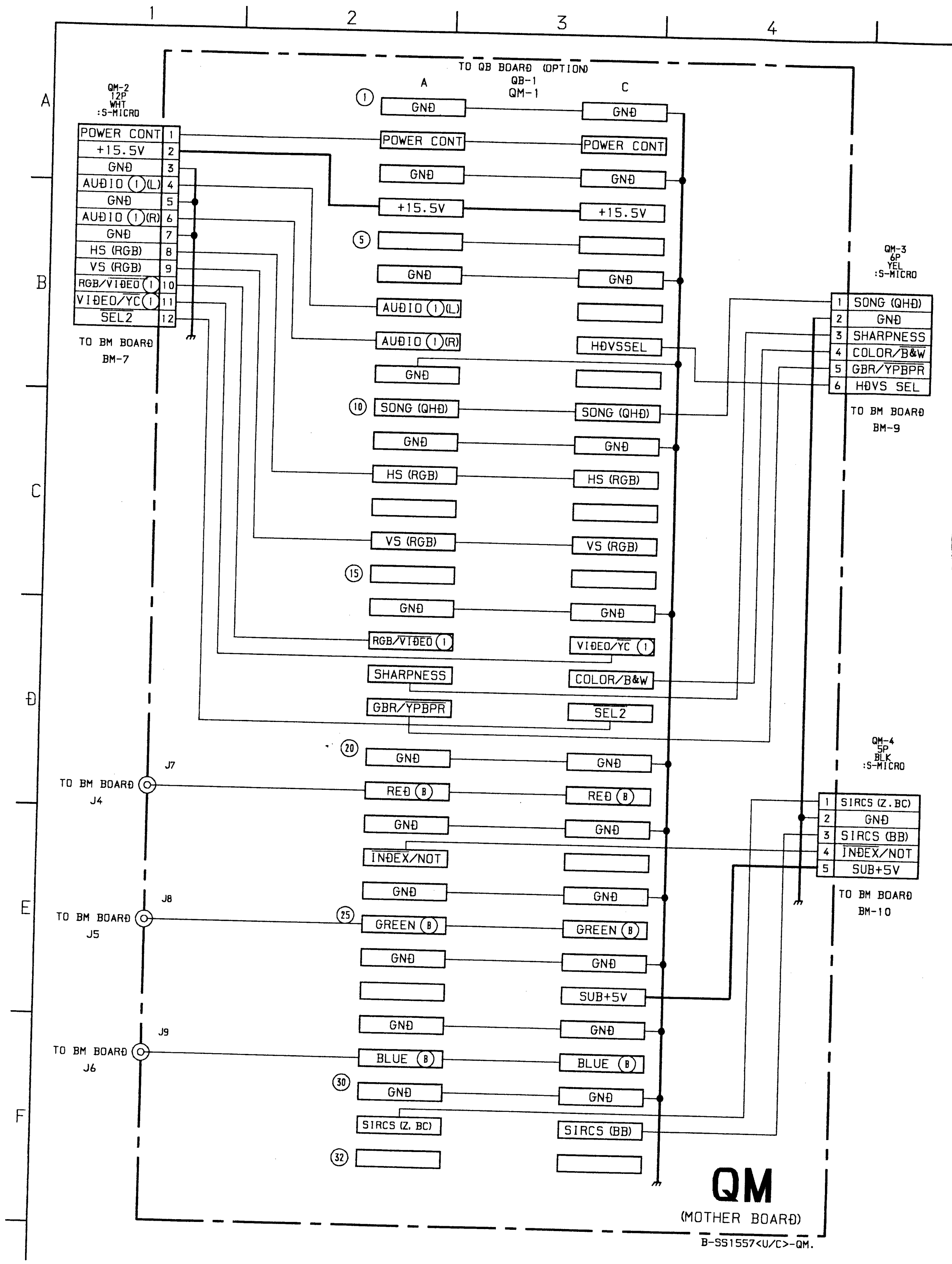

A
B
C
D
E
F
POWE
G
AUDI
G
AUDI
G
HS
VS
RGB/V
VIDE
TO BM
TO BM
TO BM
TO BM

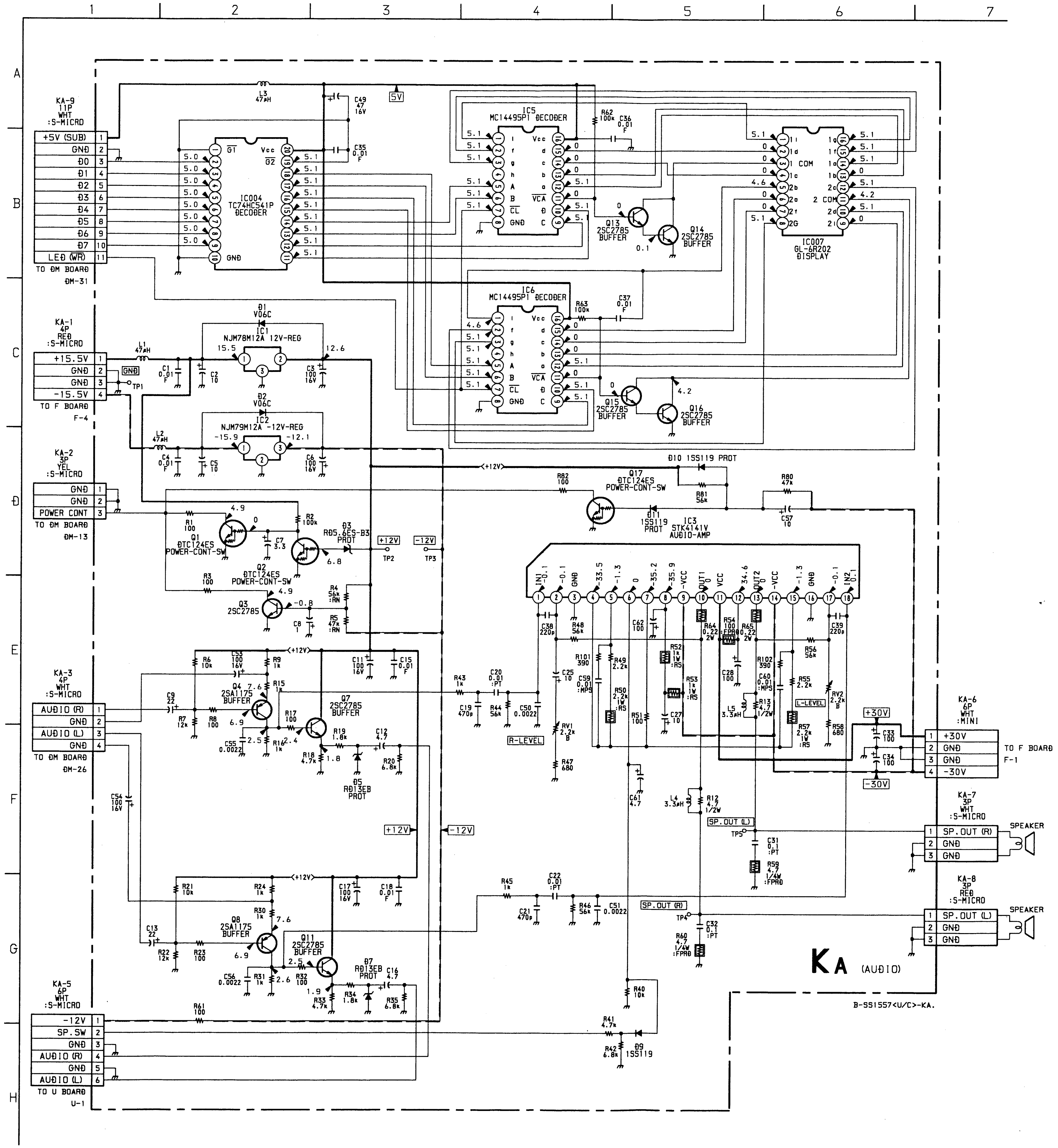
Schematic d

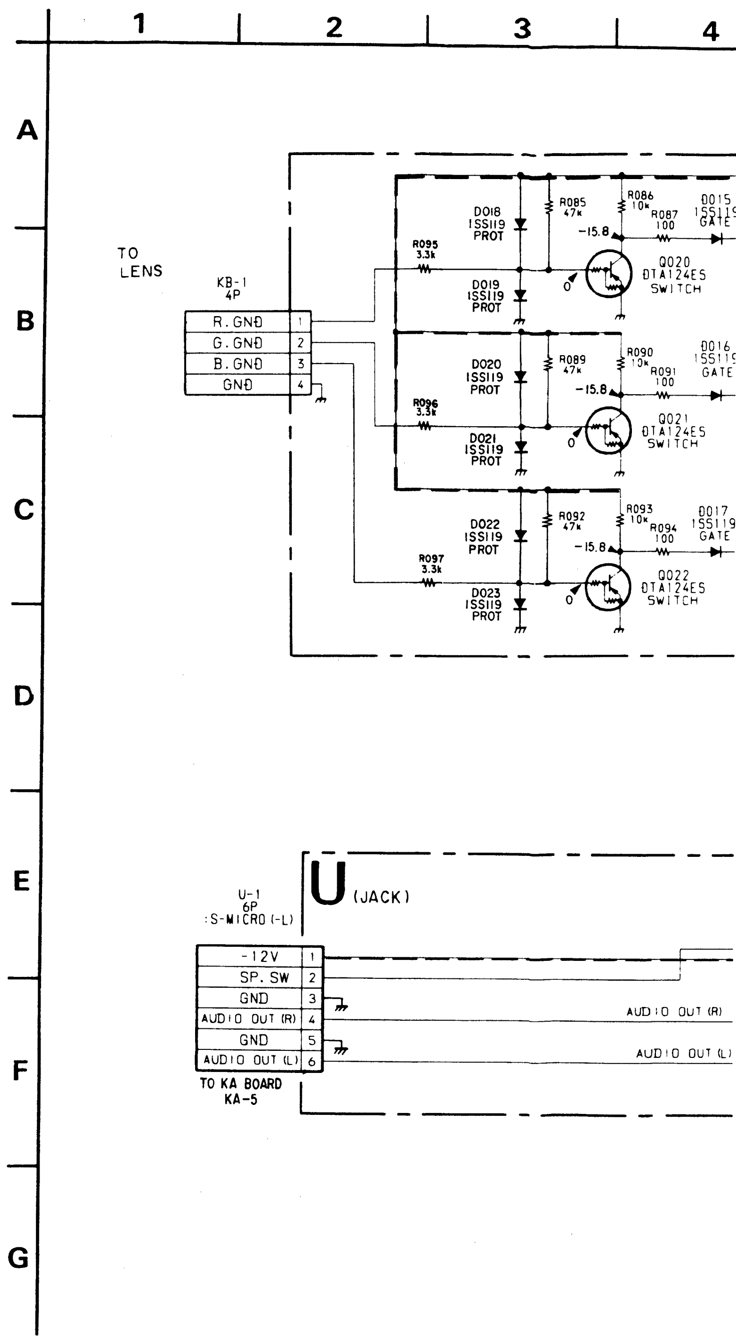
← CBB

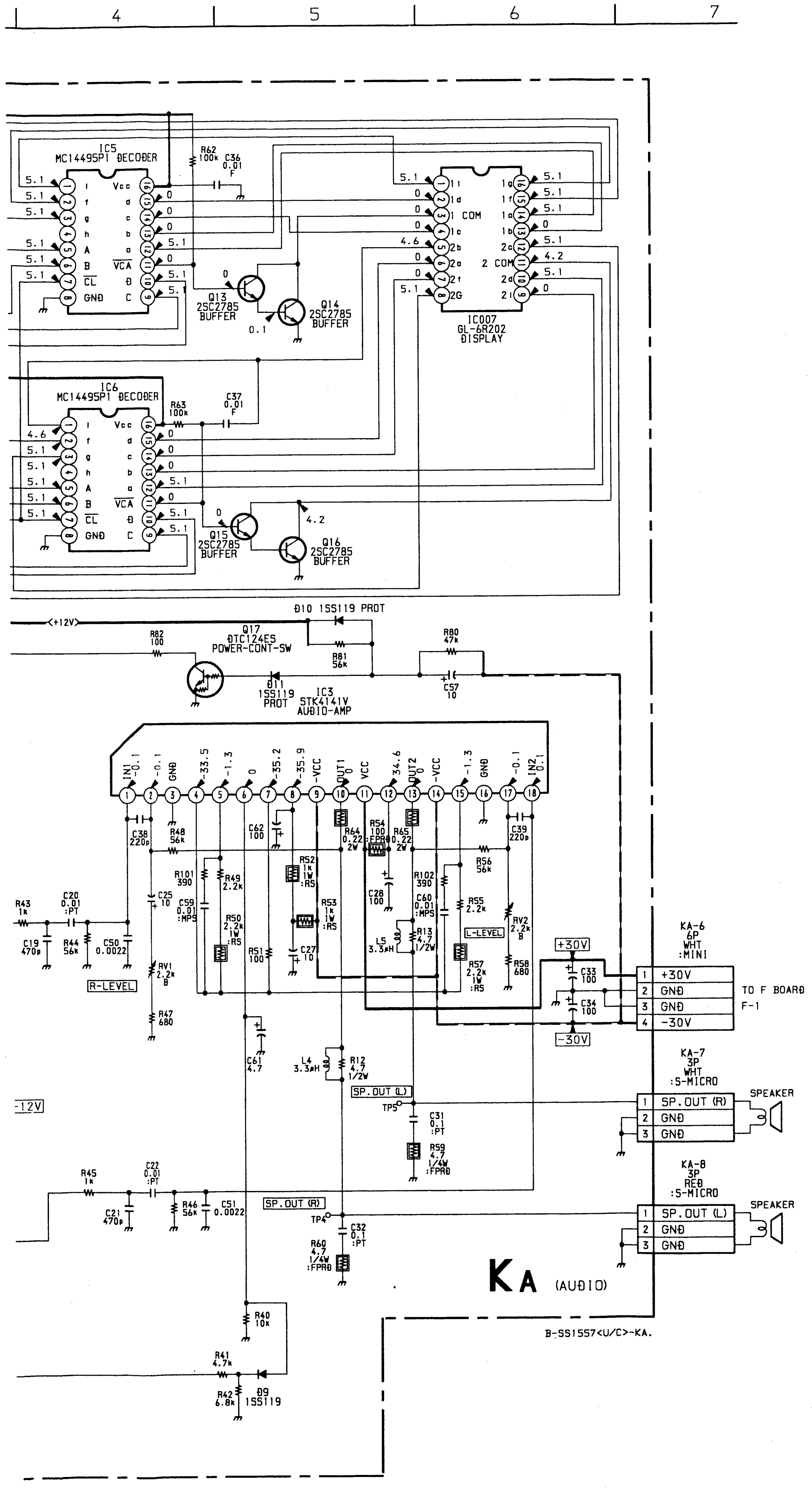

2
3
DY-1
GND 1
GND 2
DY
GND 1
GND 2
DY-2
TO HV BLOCK
SUB DY (G)
DY (G)
G
TO E BOARD E-5
TO DC BOARD DC-6
TO DC BOARD DC-11
CUS PACK
TO FOCUS PACK
TO CRT GND
CN264 2P WHT :LARGE
GND
GND
R409 15k 1/2W :RC
CN266 4P WHT :S-MICRO
TO CA (RG) BOARD CAG-1
L403 0.82μH
1 K
2 NC
3 GND
4 GND
NL404
NL403
R407 27 1/2W :RC
CN261 4P YEL :S-MICRO
NL402
NL401
R408 10 1/2W :RC
NL405
R401 1k 1/2W :RC
4 GND
3 GND
2 NC
1 G1
TO CA (RG) BOARD CAG-2
G
KET)
4 3 2 1
NC NC H H
CN263 4P RED :S-MICRO
TO CA (RG) BOARD CAG-3
CN265 1P WHT :MINI
GND
TO CHASIS GND
B-SS1557<U/C>-CBG
401 0047 2kV

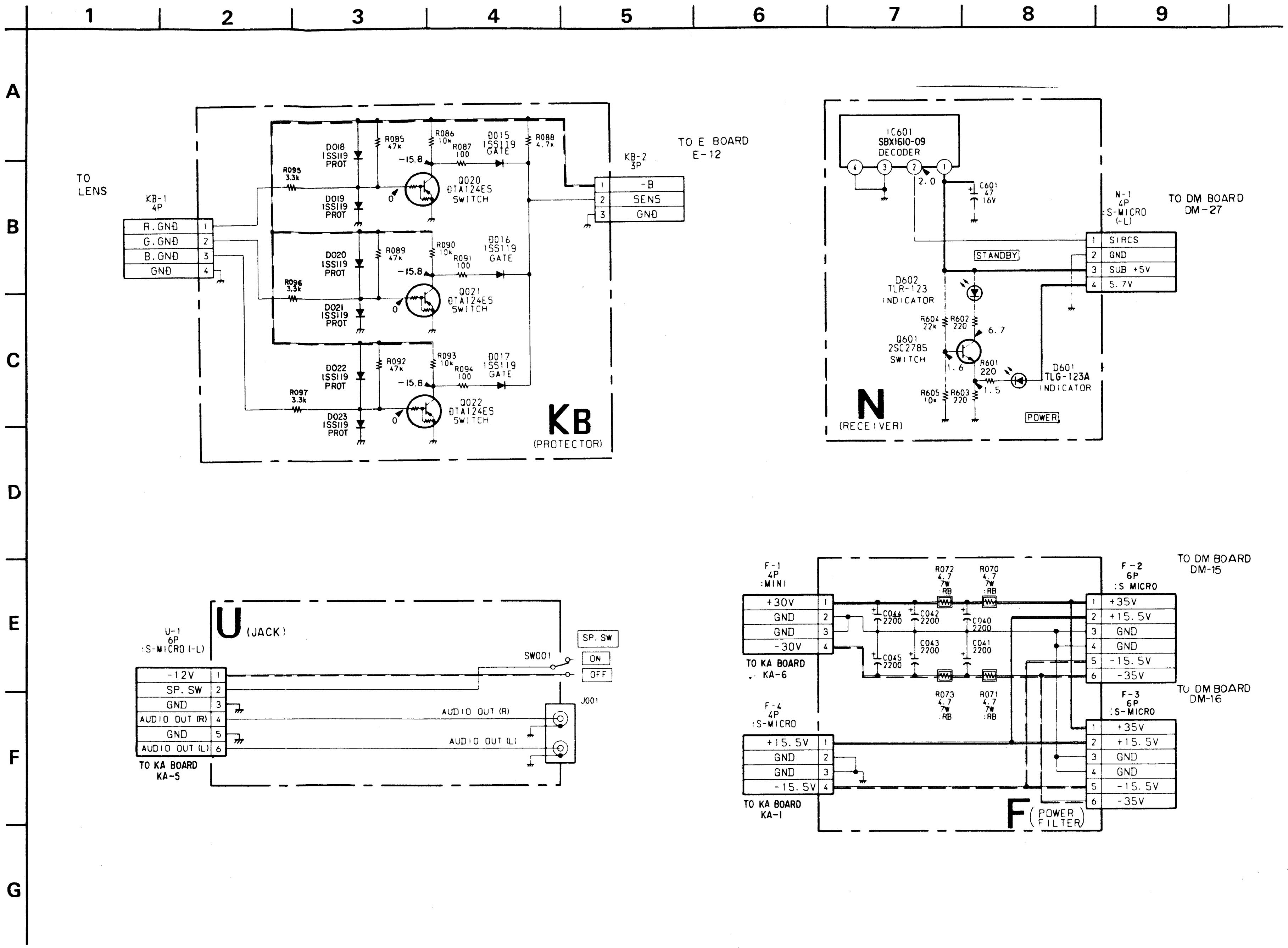

1
2
3
A
B
C
D
E
DY-1
GND 1
GND 2
DY
GND 1
GND 2
DY-2
TO HV BLOCK
SUB DY (R)
DY (R)
R
TO E BOARD E-4
TO DC BOARD DC-4
TO DC BOARD DC-10
TO FOCUS PACK
CN252 1P WHT :MINI
G2
TO FOCUS PACK
TO CRT GND
CN254 2P WHT :LARGE
GND
GND
R309 15k 1/2W :RC
R306 100k 1/2W :RC
R302 1k 1/2W :RC
C301 0.0047 2kV
SG301
CN256 4P WHT :S-MICRO
TO CA (RG) BOARD CAR-1
L303 0.82μH
1 K
2 NC
3 GND
4 GND
NL304
NL303
R307 27 1/2W :RC
CN251 4P YEL :S-MICRO
NL302
NL301
R308 10 1/2W :RC
NL305
R301 1k 1/2W :RC
4 GND
3 GND
2 NC
1 G1
TO CA (RG) BOARD CAR-2
CBR
(CRT SOCKET)
4 3 2 1
NC NC H H
CN253 4P RED :S-MICRO
TO CA (RG) BOARD CAR-3
CN255 1P WHT :MINI
GND
TO CHASIS GND
B-SS1557<U/C>-CBR


1
2
3
4
A
B
C
D
E
F
QM-2 12P WHT :S-MICRO
POWER CONT 1
+15.5V 2
GND 3
AUDIO (1)(L) 4
GND 5
AUDIO (1)(R) 6
GND 7
HS (RGB) 8
VS (RGB) 9
RGB/VIDEO (1) 10
VIDEO/YC (1) 11
SEL2 12
TO BM BOARD BM-7
TO QB BOARD (OPTION) QB-1 QM-1
A
C
① GND
GND
POWER CONT
POWER CONT
GND
GND
+15.5V
+15.5V
⑤
GND
GND
AUDIO (1)(L)
AUDIO (1)(R)
HDVSSEL
GND
⑩ SONG (QHD)
SONG (QHD)
GND
GND
HS (RGB)
HS (RGB)
VS (RGB)
VS (RGB)
⑮
GND
GND
RGB/VIDEO (1)
VIDEO/YC (1)
SHARPNESS
COLOR/B&W
GBR/YPBPR
SEL2
⑳ GND
GND
RED (B)
RED (B)
GND
GND
INDEX/NOT
GND
GND
㉕ GREEN (B)
GREEN (B)
GND
GND
SUB+5V
GND
GND
BLUE (B)
BLUE (B)
㉚ GND
GND
SIRCS (Z.BC)
SIRCS (BB)
㉜
QM-3 6P YEL :S-MICRO
1 SONG (QHD)
2 GND
3 SHARPNESS
4 COLOR/B&W
5 GBR/YPBPR
6 HDVS SEL
TO BM BOARD BM-9
QM-4 5P BLK :S-MICRO
1 SIRCS (Z.BC)
2 GND
3 SIRCS (BB)
4 INDEX/NOT
5 SUB+5V
TO BM BOARD BM-10
TO BM BOARD J4
J7
TO BM BOARD J5
J8
TO BM BOARD J6
J9
QM
(MOTHER BOARD)
B-SS1557<U/C>-QM.


KA (AUDIO)
B-SS1557<U/C>-KA.
KA-9 11P WHT :S-MICRO
+5V (SUB)
GND
D0
D1
D2
D3
D4
D5
D6
D7
LED (WR)
TO DM BOARD DM-31
IC004 TC74HC541P DECODER
IC5 MC14495P1 DECODER
IC6 MC14495P1 DECODER
IC007 GL-6R202 DISPLAY
Q13 2SC2785 BUFFER
Q14 2SC2785 BUFFER
Q15 2SC2785 BUFFER
Q16 2SC2785 BUFFER
KA-1 4P RED :S-MICRO
+15.5V
GND
GND
-15.5V
TO F BOARD F-4
IC1 NJM78M12A 12V-REG
IC2 NJM79M12A -12V-REG
D1 V06C
D2 V06C
KA-2 3P YEL :S-MICRO
GND
GND
POWER CONT
TO DM BOARD DM-13
Q1 DTC124ES POWER-CONT-SW
Q2 DTC124ES POWER-CONT-SW
Q3 2SC2785
D3 RD5.6ES-B3 PROT
Q17 DTC124ES POWER-CONT-SW
D10 1SS119 PROT
D11 1SS119 PROT
IC3 STK4141V AUDIO-AMP
KA-3 4P WHT :S-MICRO
AUDIO (R)
GND
AUDIO (L)
GND
TO DM BOARD DM-26
Q4 2SA1175 BUFFER
Q7 2SC2785 BUFFER
D5 RD13EB PROT
Q8 2SA1175 BUFFER
Q11 2SC2785 BUFFER
D7 RD13EB PROT
R-LEVEL
L-LEVEL
KA-6 6P WHT :MINI
+30V
GND
GND
-30V
TO F BOARD F-1
KA-7 3P WHT :S-MICRO
SP.OUT (R)
GND
GND
SPEAKER
KA-8 3P RED :S-MICRO
SP.OUT (L)
GND
GND
SPEAKER
KA-5 6P WHT :S-MICRO
-12V
SP.SW
GND
AUDIO (R)
GND
AUDIO (L)
TO U BOARD U-1
D9 1SS119
SP.OUT (L)
SP.OUT (R)
+12V
-12V
+30V
-30V
5V
TP1
TP2
TP3
TP4
TP5

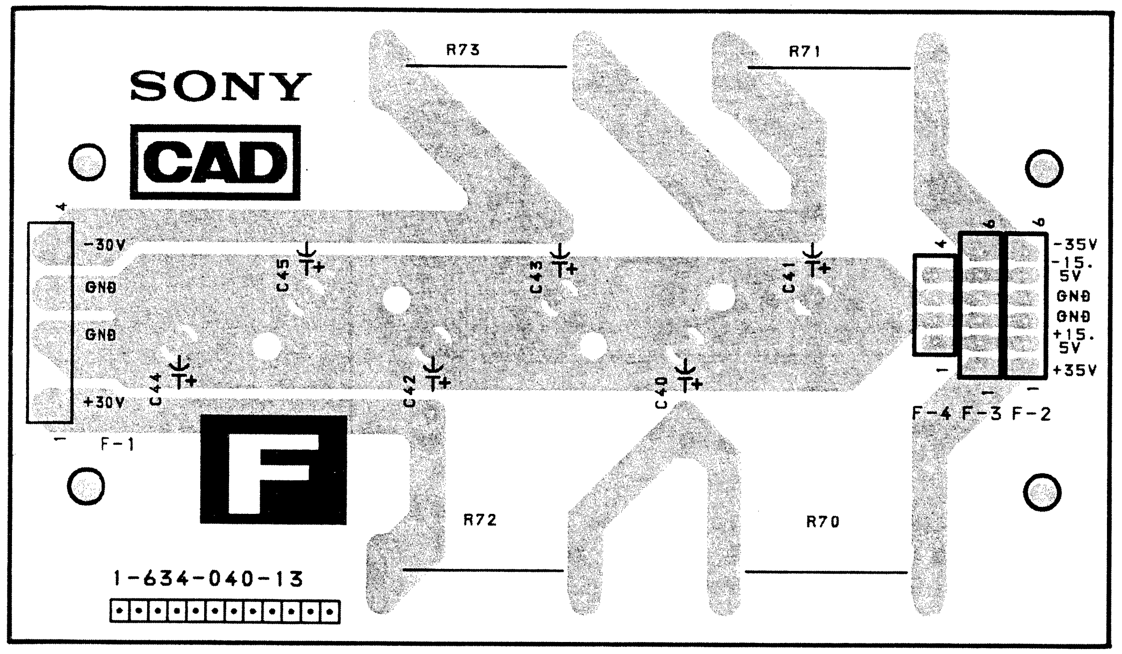

TO LENS
KB-1 4P
R.GND
G.GND
B.GND
GND
D018 1SS119 PROT
D019 1SS119 PROT
D020 1SS119 PROT
D021 1SS119 PROT
D022 1SS119 PROT
D023 1SS119 PROT
Q020 DTA124ES SWITCH
Q021 DTA124ES SWITCH
Q022 DTA124ES SWITCH
U (JACK)
U-1 6P :S-MICRO (-L)
-12V
SP.SW
GND
AUDIO OUT (R)
GND
AUDIO OUT (L)
TO KA BOARD KA-5


4
5
6
7
IC5 MC14495P1 DECODER
IC6 MC14495P1 DECODER
IC007 GL-6R202 DISPLAY
Q13 2SC2785 BUFFER
Q14 2SC2785 BUFFER
Q15 2SC2785 BUFFER
Q16 2SC2785 BUFFER
D10 1SS119 PROT
Q17 DTC124ES POWER-CONT-SW
D11 1SS119 PROT
IC3 STK4141V AUDIO-AMP
R-LEVEL
L-LEVEL
+30V
-30V
KA-6 6P WHT :MINI
+30V
GND
GND
-30V
TO F BOARD F-1
KA-7 3P WHT :S-MICRO
SP.OUT (R)
GND
GND
SPEAKER
KA-8 3P RED :S-MICRO
SP.OUT (L)
GND
GND
SPEAKER
SP.OUT (L)
SP.OUT (R)
TP5
TP4
D9 1SS119
-12V
KA (AUDIO)
B-SS1557<U/C>-KA.

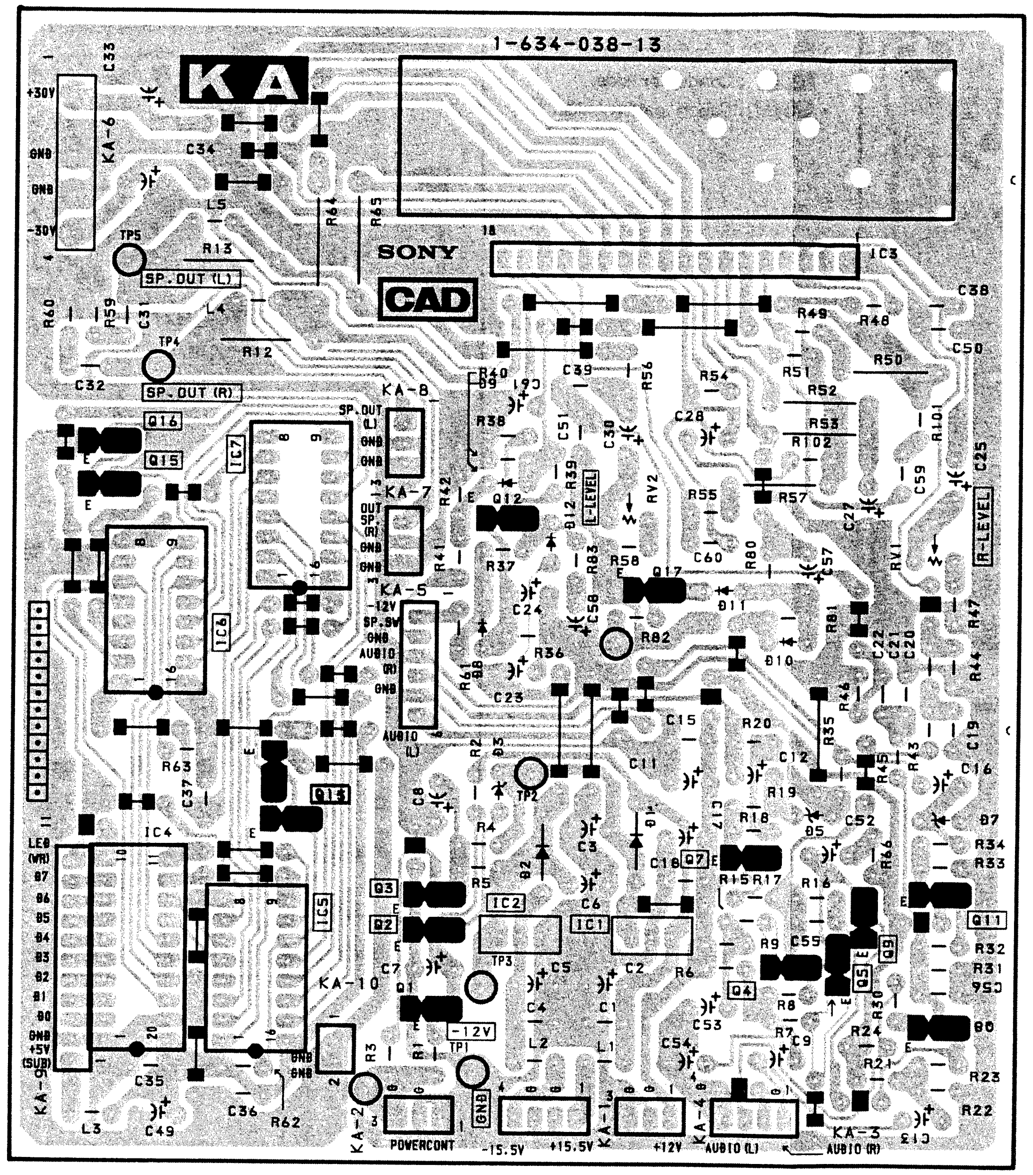

1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
TO LENS
KB-1 4P
R.GND
G.GND
B.GND
GND
D018 1SS119 PROT
D019 1SS119 PROT
D020 1SS119 PROT
D021 1SS119 PROT
D022 1SS119 PROT
D023 1SS119 PROT
Q020 DTA124ES SWITCH
Q021 DTA124ES SWITCH
Q022 DTA124ES SWITCH
D015 1SS119 GATE
D016 1SS119 GATE
D017 1SS119 GATE
KB-2 3P
-B
SENS
GND
TO E BOARD E-12
KB (PROTECTOR)
IC601 SBX1610-09 DECODER
D602 TLR-123 INDICATOR
Q601 2SC2785 SWITCH
D601 TLG-123A INDICATOR
STANDBY
POWER
N-1 4P :S-MICRO (-L)
SIRCS
GND
SUB +5V
5.7V
TO DM BOARD DM-27
N (RECEIVER)
U (JACK)
U-1 6P :S-MICRO (-L)
-12V
SP. SW
GND
AUDIO OUT (R)
GND
AUDIO OUT (L)
TO KA BOARD KA-5
SW001
SP. SW
ON
OFF
J001
AUDIO OUT (R)
AUDIO OUT (L)
F-1 4P :MINI
+30V
GND
GND
-30V
TO KA BOARD KA-6
F-4 4P :S-MICRO
+15.5V
GND
GND
-15.5V
TO KA BOARD KA-1
F-2 6P :S MICRO
+35V
+15.5V
GND
GND
-15.5V
-35V
TO DM BOARD DM-15
F-3 6P :S-MICRO
+35V
+15.5V
GND
GND
-15.5V
-35V
TO DM BOARD DM-16
F (POWER FILTER)

F [POWER FILTER] **KB** [PROTECTOR] **N** [RECEIVER] **U** [JACK] **KA** [AUDIO]

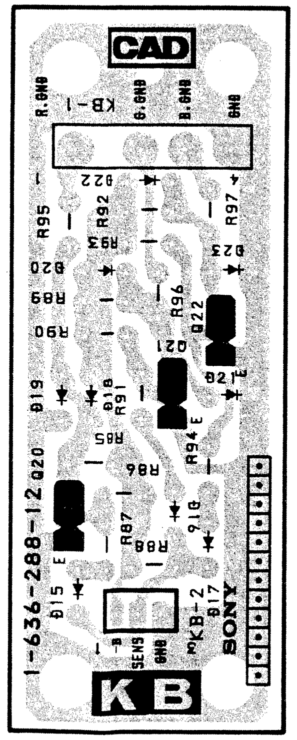
– F BOARD –


SONY
CAD
F
R73
R71
R72
R70
-30V
GND
GND
+30V
F-1
C45
C43
C41
C44
C42
C40
-35V
-15.5V
GND
GND
+15.5V
+35V
F-4 F-3 F-2
1-634-040-13

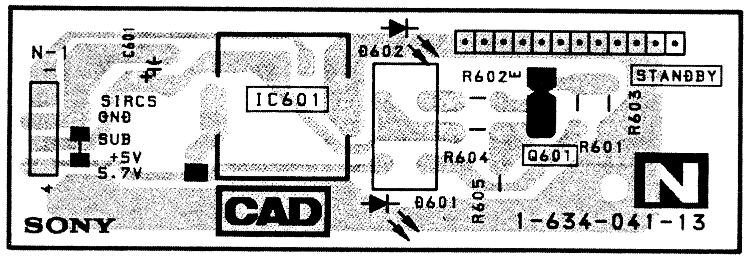
– KA BOARD –


KA
1-634-038-13
SONY
CAD
+30V
GND
GND
-30V
KA-6
C33
C34
L5
R64
R65
TP5
R13
SP. OUT (L)
L4
TP4
R12
SP. OUT (R)
R60
R59
C31
C32
IC3
C38
R49
R48
C50
R50
R40
C39
R56
R54
R51
R52
R53
R102
R101
C25
KA-8
SP. OUT (L) GND GND
KA-7
OUT SP. (R) GND GND
KA-5
-12V SP. SW GND AUDIO (R) GND AUDIO (L)
Q16
Q15
IC7
IC6
R38
C51
C30
C28
R42
Q12
R39
L-LEVEL
RV2
R55
R57
C27
C59
R-LEVEL
RV1
R37
R41
R83
R58
C60
R80
C57
C58
Q17
D11
R81
C24
R82
D10
R36
C23
R61
R47
R44
C22
C21
C20
C15
R20
R35
R46
R63
C37
Q14
D3
R2
TP2
C11
C12
R45
R43
C19
C16
IC4
IC5
C8
R4
C17
R18
R19
C52
D5
D7
R34
R33
C3
C18
Q7
R15
R17
R16
R66
Q3
Q2
IC2
IC1
Q11
R32
R31
TP3
C7
C5
C6
C2
R6
R9
C55
Q6
Q5
C56
Q1
C4
C1
Q4
R8
KA-10
KA-9
LED (WR)
D7 D6 D5 D4 D3 D2 D1 D0
GND
+5V (SUB)
R3
R1
TP1
-12V
L2
L1
C53
C54
R7
C9
R24
R21
R23
R22
C35
C36
R62
C49
L3
KA-2
POWERCONT
GND
-15.5V
+15.5V
KA-1
+12V
KA-4
AUDIO (L)
KA-3
AUDIO (R)
C13

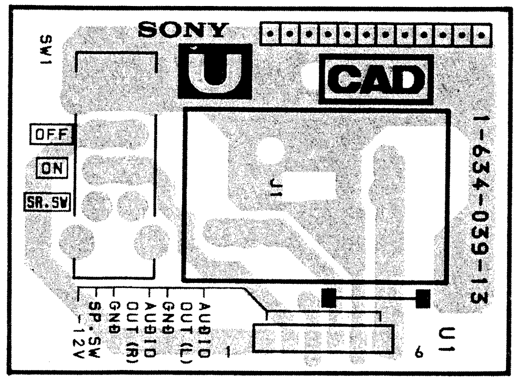
– KB BOARD –

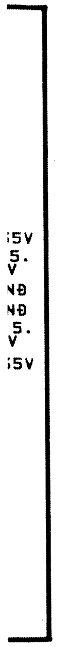

CAD
KB-1
R.GND
R.GND
R.GND
GND
D22
R92
R95
R93
R97
D23
D20
R89
R96
Q22
R90
Q21
D21
D19
D18
R91
R85
R94
R86
D16
Q20
R87
R88
D15
KB-2
SENS
GND
D17
1-636-288-12
SONY
KB

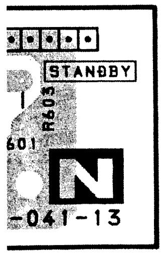
– N BOARD –


N-1
C601
SIRCS
GND
SUB
+5V
5.7V
IC601
D602
R602
STANDBY
Q601
R601
R603
R604
R605
D601
SONY
CAD
N
1-634-041-13

– U BOARD –

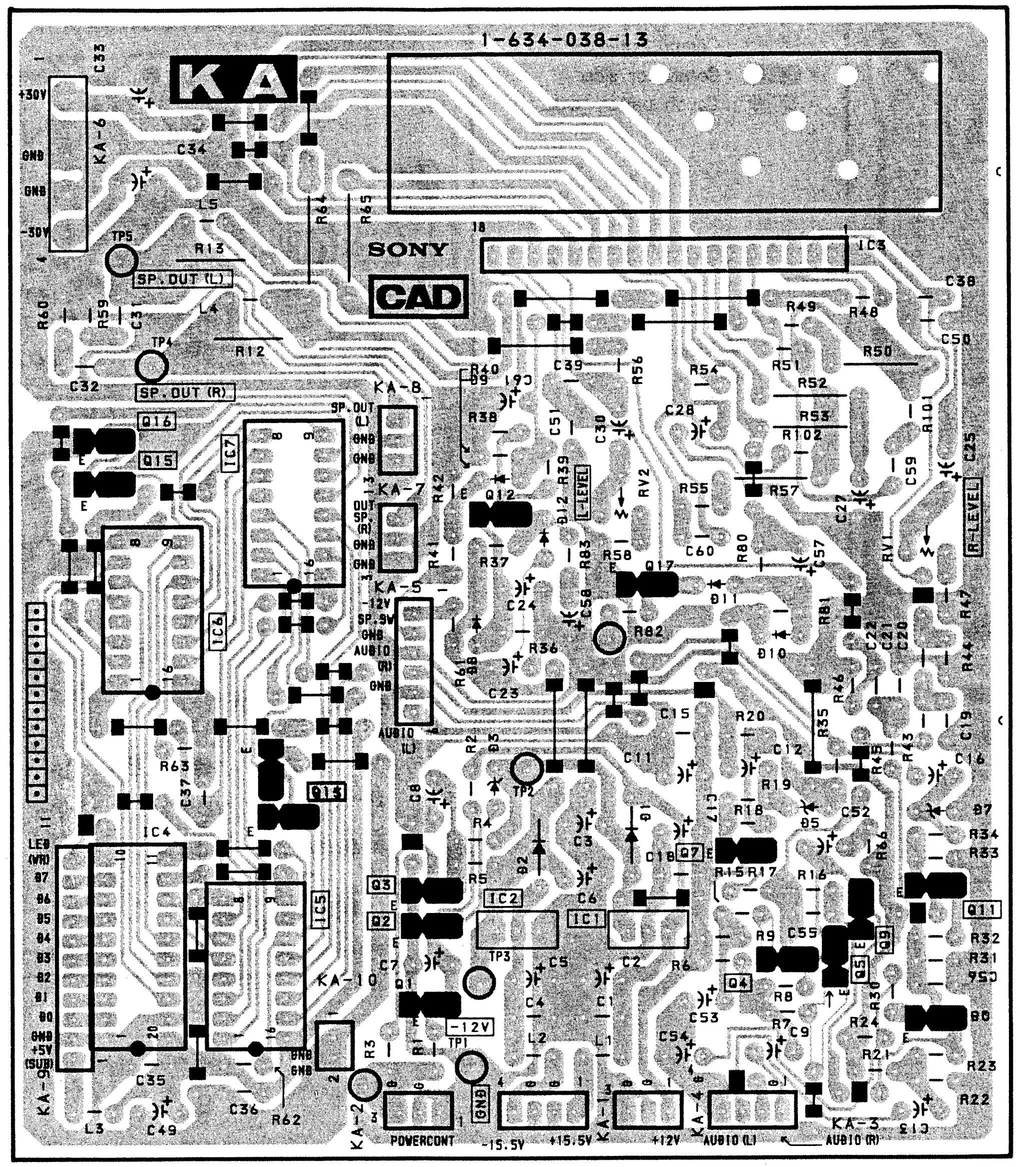

SW1
SONY
U
CAD
OFF
ON
SR.SW
J1
1-634-039-13
-12V
SP.SW
GND
OUT (R)
AUDIO
GND
OUT (L)
AUDIO
U1
1
9


5V
5.
V
ND
ND
5.
V
5V


STANDBY
R603
601
N
-041-13

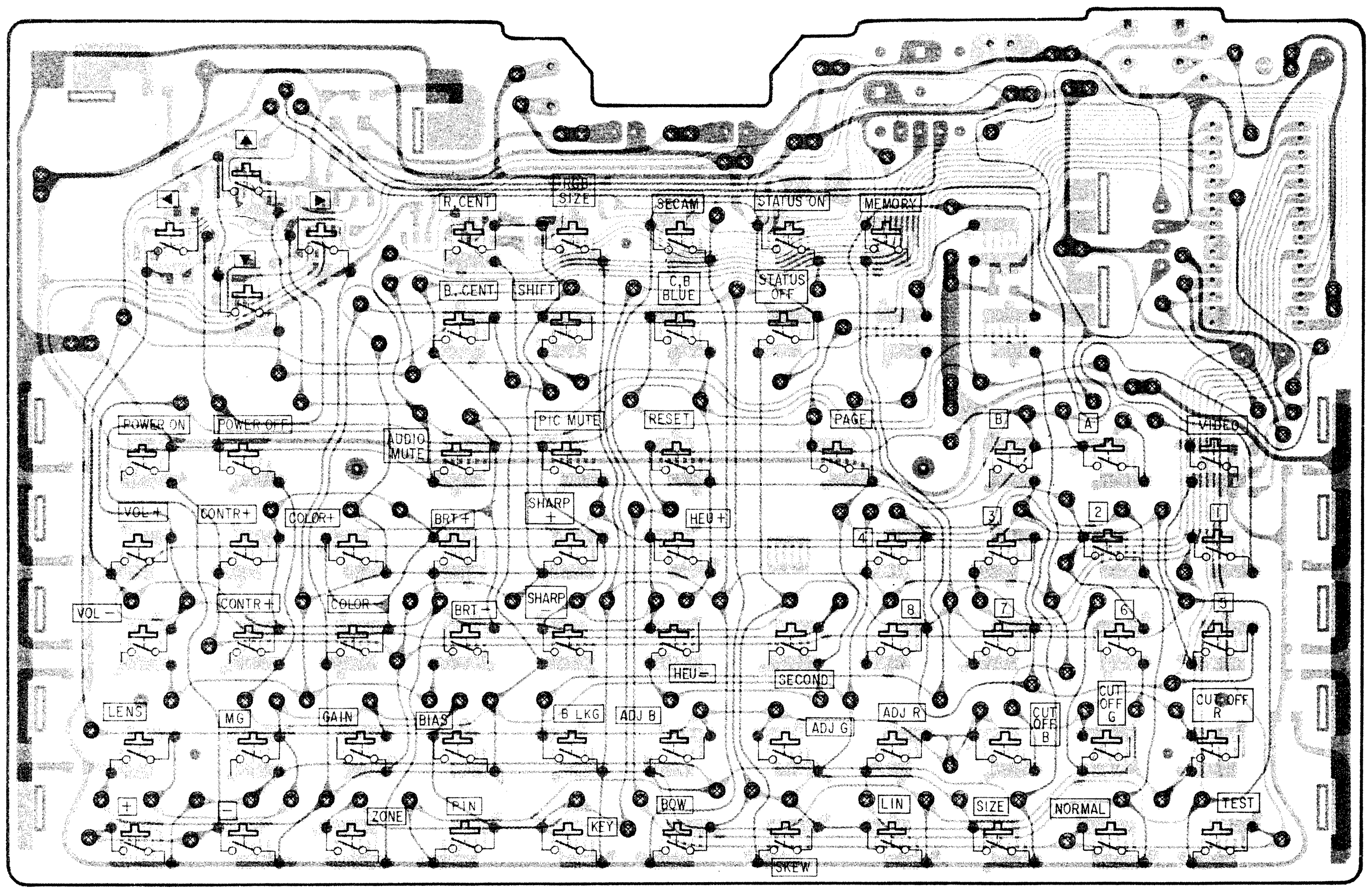
A [AUDIO]

– KA BOARD –


1-634-038-13
KA
SONY
CAD
+30V
GND
GND
-30V
KA-6
TP5
SP. OUT (L)
TP4
SP. OUT (R)
KA-8
KA-7
KA-5
KA-9
KA-10
KA-2
KA-1
KA-4
KA-3
IC1
IC2
IC3
IC4
IC5
IC6
IC7
TP1
TP2
TP3
RV1
RV2
L-LEVEL
R-LEVEL
-12V
GND
POWERCONT
-15.5V
+15.5V
+12V
AUDIO (L)
AUDIO (R)

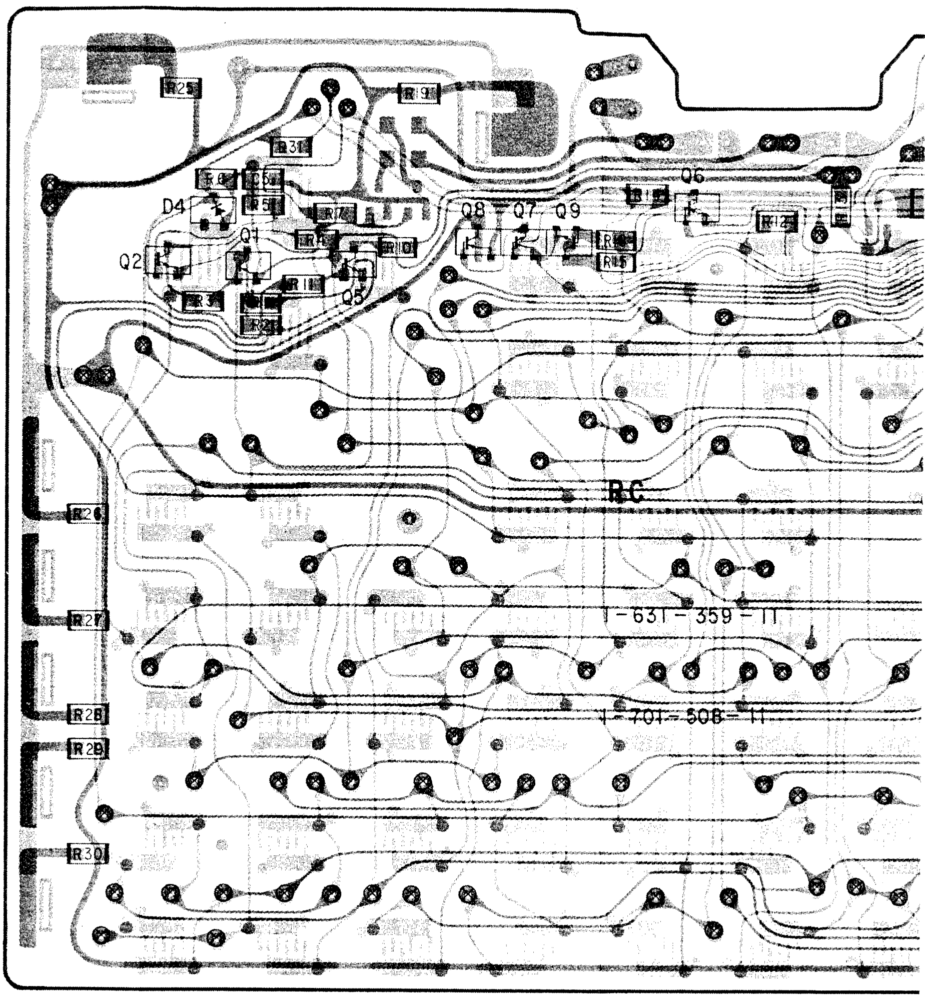
RC RCA RCB RCC RCD [CONTROL PANEL]

– RC BOARD –

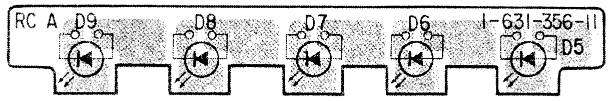

▲
◄
►
▼
R.CENT
RGB SIZE
SECAM
STATUS ON
MEMORY
B.CENT
SHIFT
C.B BLUE
STATUS OFF
POWER ON
POWER OFF
AUDIO MUTE
PIC MUTE
RESET
PAGE
B
A
VIDEO
VOL+
CONTR+
COLOR+
BRT+
SHARP +
HEU+
4
3
2
1
VOL−
CONTR−
COLOR−
BRT−
SHARP−
HEU−
8
7
6
5
SECOND
LENS
MG
GAIN
BIAS
B LKG
ADJ B
ADJ G
ADJ R
CUT OFF B
CUT OFF G
CUT OFF R
+
−
ZONE
PIN
KEY
BOW
SKEW
LIN
SIZE
NORMAL
TEST

Note :

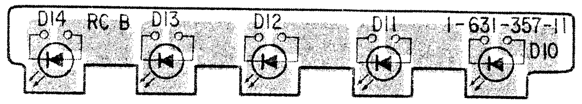
- ▨ : Component side.
- ■ : Conductor side.
- ░ : Cabon pattern side.


R25
R31
R30
D4
Q1
Q2
Q5
Q6
Q8
Q7
Q9
RC
1-631-359-11
1-701-508-11
R26
R27
R28
R29
R30

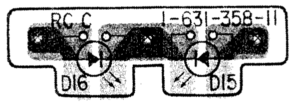
– RCA BOARD –


RC A
D9
D8
D7
D6
1-631-356-11
D5

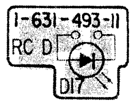
– RCB BOARD –


D14
RC B
D13
D12
D11
1-631-357-11
D10

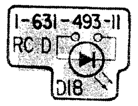
– RCC BOARD –


RC C
1-631-358-11
D16
D15

– RCD BOARD –


1-631-493-11
RC D
D17

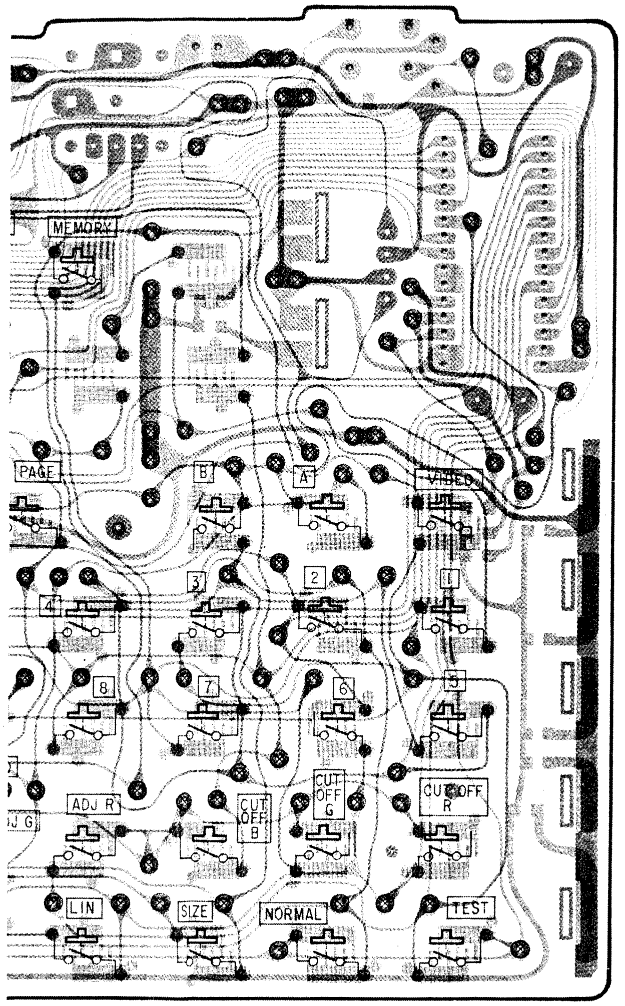
– RCD BOARD –


1-631-493-11
RC D
D18

Note :

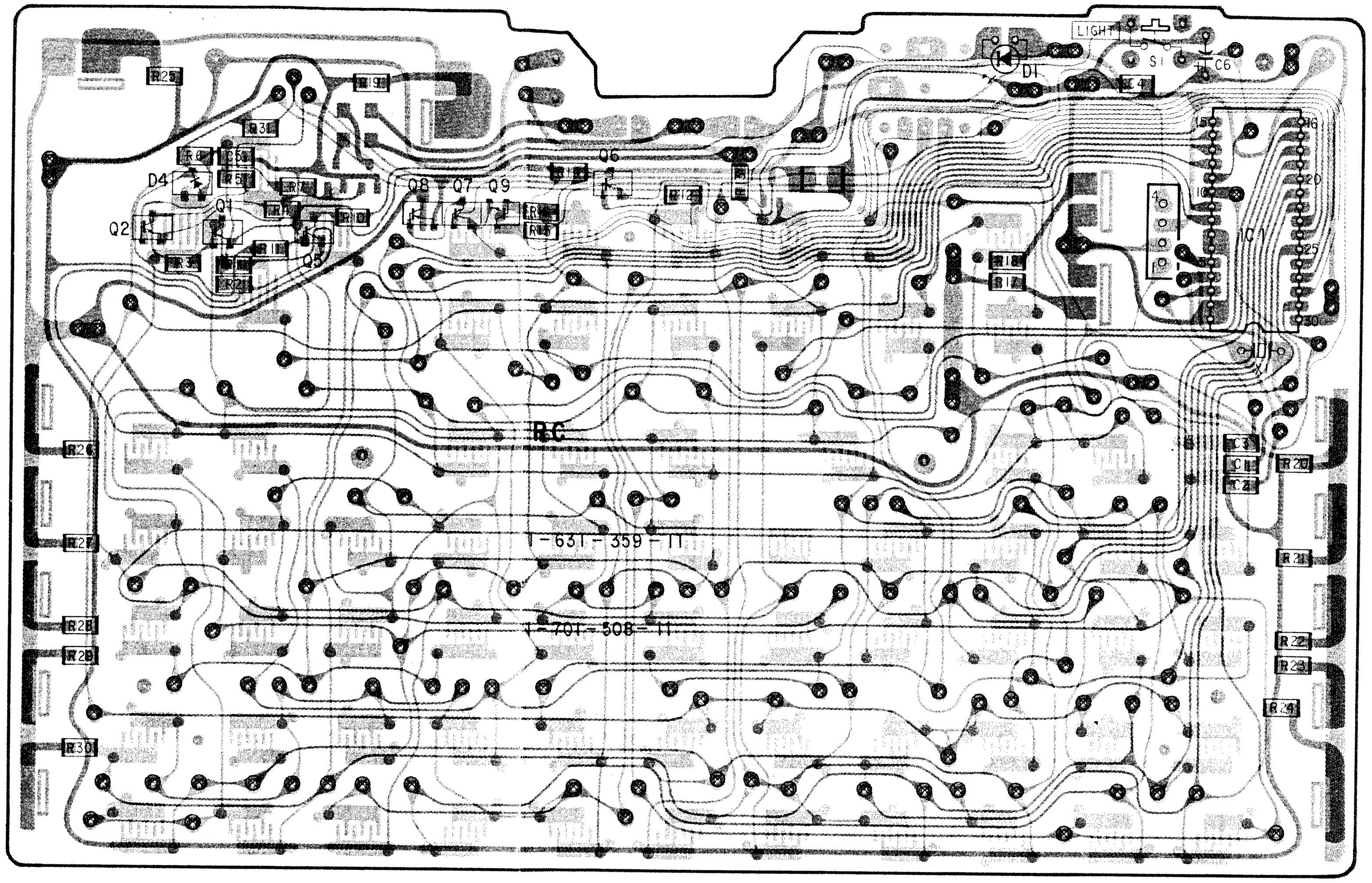
- ▨ : Pattern from the side which enables seeing.
- ■ : Pattern of the rear side.

NTROL PANEL]


MEMORY
PAGE
B
A
VIDEO
4
3
2
1
8
7
6
5
ADJ R
CUT OFF B
CUT OFF G
CUT OFF R
LIN
SIZE
NORMAL
TEST

Note :

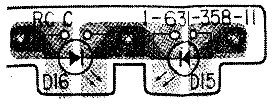
- ▨ : Component side.
- ▩ : Conductor side.
- ░ : Cabon pattern side.


R25
Q3
Q6
D4
Q1
Q2
Q8
Q7
Q9
LIGHT
D1
S1
C6
IC1
RC
1-631-359-11
1-701-508-11
R26
R27
R28
R29
R30
R20
R21
R22
R23
R24

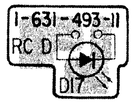
Note :

- ▨ : Component side.
- ▩ : Conductor side.
- ░ : Cabon pattern side.

RCC BOARD -


RC C
1-631-358-11
D16
D15

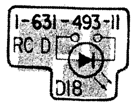
- RCD BOARD -


1-631-493-11
RC D
D17

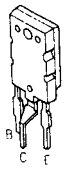
Note :

- ▨ : Pattern from the side which enables seeing.
- ▩ : Pattern of the rear side.

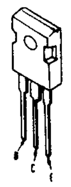
- RCD BOARD -


1-631-493-11
RC D
D18

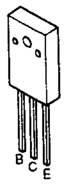
2SC3998



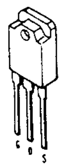
2SC3998CA



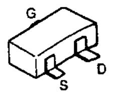
2SC4054N



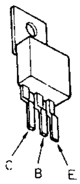
2SD1403-CA



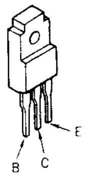
2SK160-K5
2SK160-K6



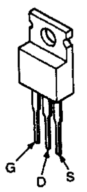
2SK523-M1



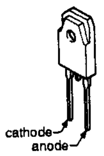
2SK755



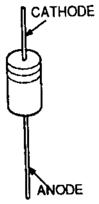
2SJ143
2SK817
2SK929



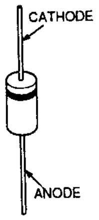
DD50R


cathode
anode

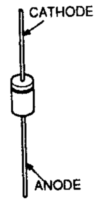
EGP10D
EGP10G
ERA22-06
RD10ES-B2
RD12ES-B2
RD13ES-B2
RD15ES-B2
RD2.0ES-B2
RD20ES-B2
RD33ES-B2
RD3.3ES-B2
RD39ES-B
RD39ES-B2
RD5.1ES-B2
RD6.8ES-B2
1SS119


CATHODE
ANODE

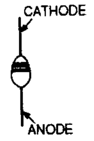
ERA22-08
1SS83


CATHODE
ANODE

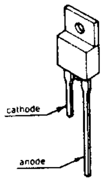
ERC91-02
RU-1
RU-1C


CATHODE
ANODE

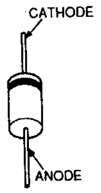
ERC06-15SA
ERC38-06
V06C
V09G
V11N
V19EF1


CATHODE
ANODE

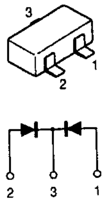
ERC88-009


cathode
anode

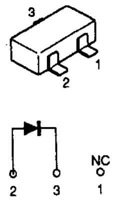
ERD29-08J
ERD33-02


CATHODE
ANODE

MA152WK
1S2837



RD12M-B2
RD13M-B2
RD2.4M-B
RD3.3M-B2
RD3.6M-B1
RD4.3M-B1
RD5.1M-B2
RD6.2M-B1
1SS184
1SS193
1SS220



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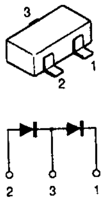

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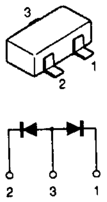

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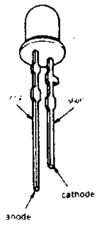
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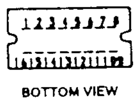
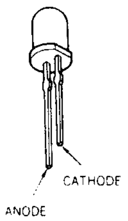
short
cathode
anode

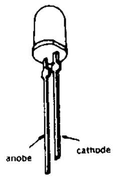
GL-6R202


BOTTOM VIEW

PY5504S-1


CATHODE
ANODE

SE303AY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cathode

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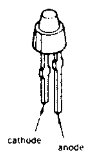
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anode

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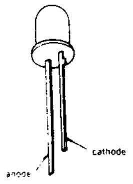
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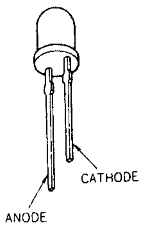
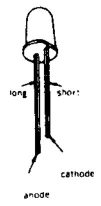
anode

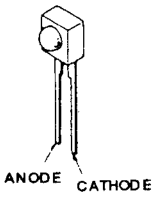
TLG113A


CATHODE
ANODE

TLR113A


long
short
cathode
anode

TLR214


ANODE
CATHODE

SECTION 8
EXPLODED VIEWS

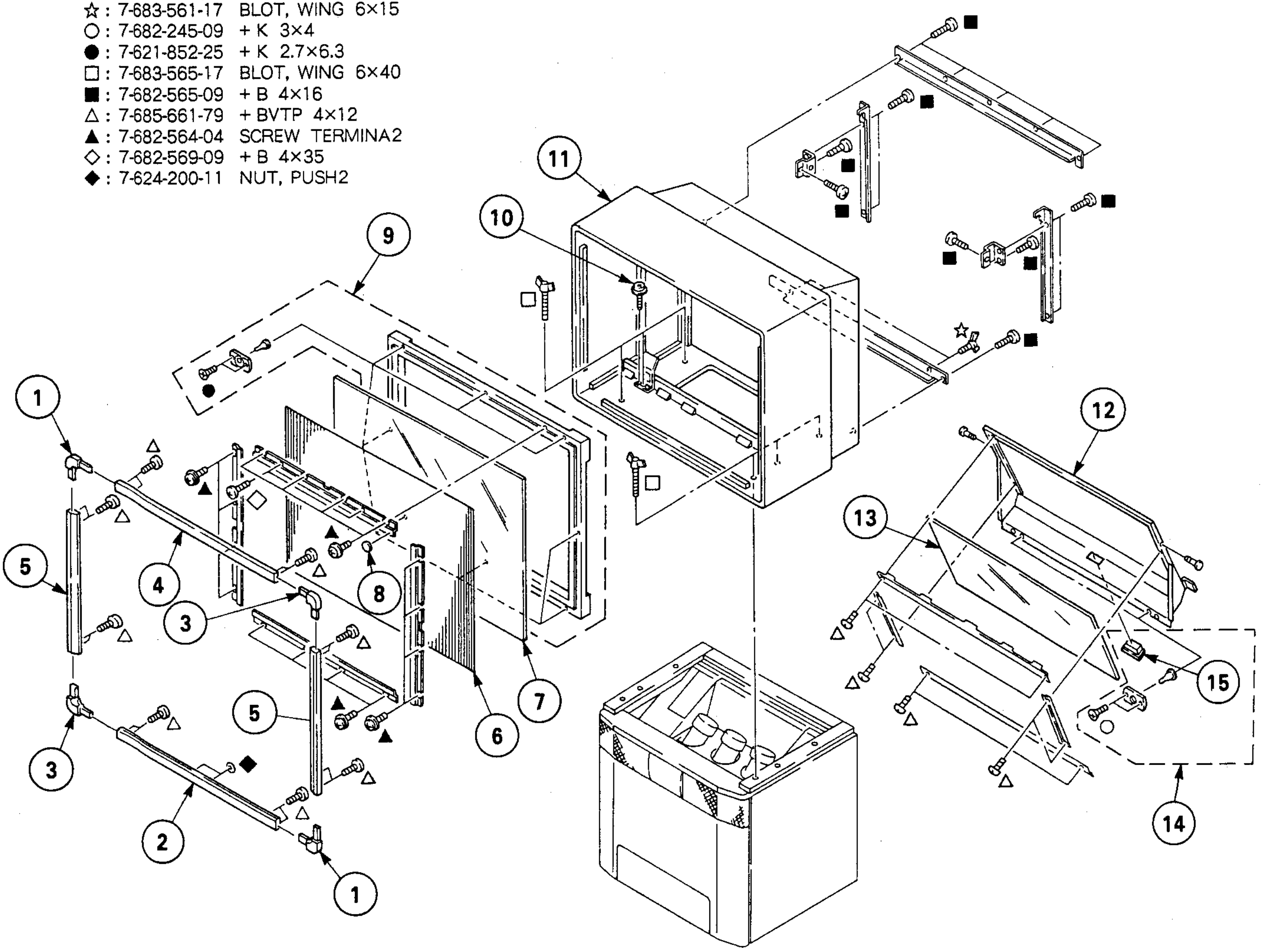
NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

8-1. CABINET (U) BLOCK

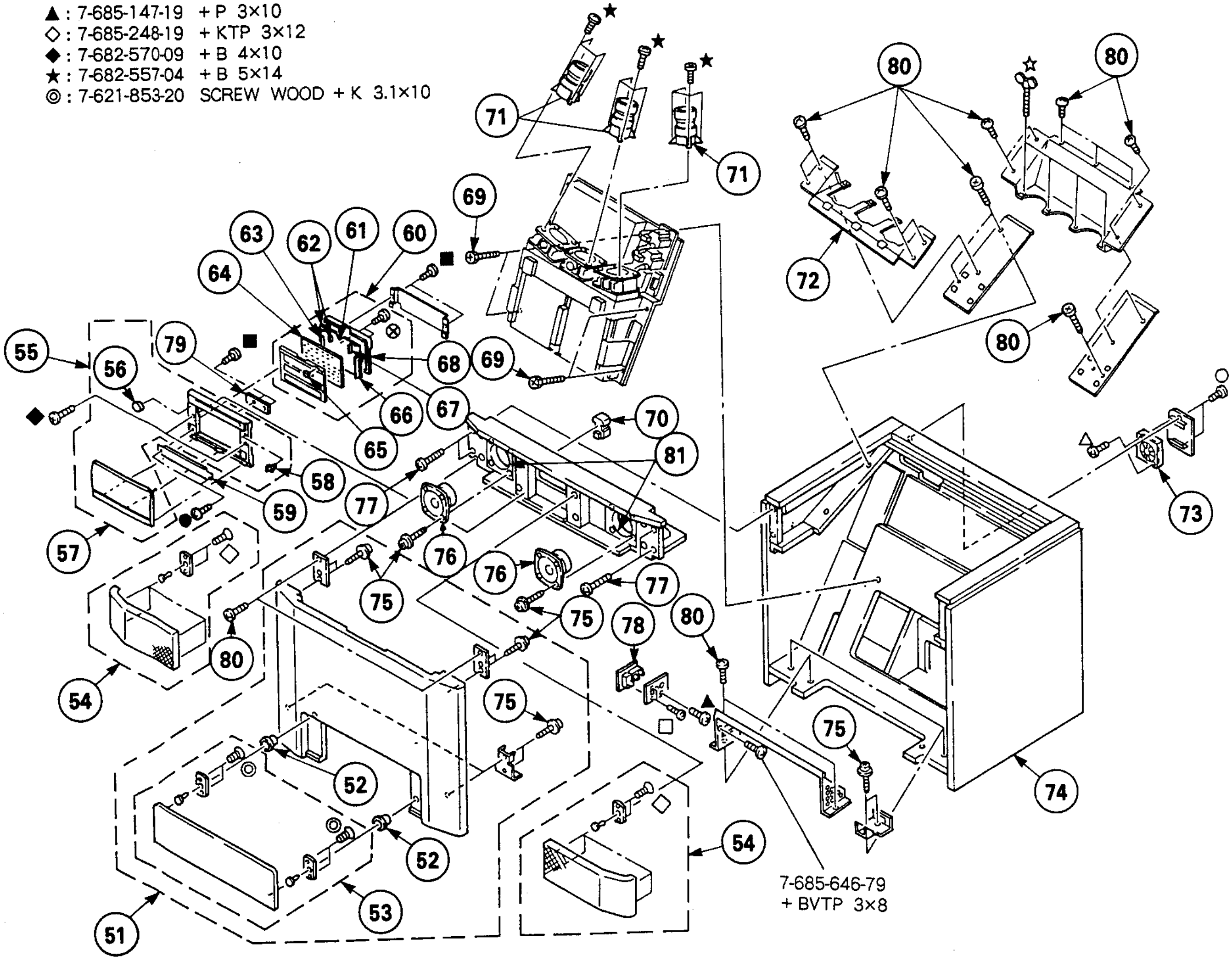
☆ : 7-683-561-17 BLOT, WING 6×15
○ : 7-682-245-09 +K 3×4
● : 7-621-852-25 +K 2.7×6.3
□ : 7-683-565-17 BLOT, WING 6×40
■ : 7-682-565-09 +B 4×16
△ : 7-685-661-79 +BVTP 4×12
▲ : 7-682-564-04 SCREW TERMINA2
◇ : 7-682-569-09 +B 4×35
◆ : 7-624-200-11 NUT, PUSH2



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	4-396-963-01	FRAME (L), SCREEN CORNER	
2	X-4029-035-1	FRAME (L) ASSY, SCREEN	
3	4-396-964-01	FRAME (R), SCREEN CORNER	
4	X-4395-551-1	FRAME (H.L) ASSY, SCREEN	
5	X-4395-553-1	FRAME (V) ASSY, SCREEN	
6	4-396-959-11	SCREEN (L)	
7	X-4029-162-1	SCREEN (F)	
8	2-270-660-00	MARKER (R)	
9	*X-4395-546-1	BRACE ASSY, SCREEN	
10	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
11	*X-4031-931-1	CABINET (U) ASSY	
12	4-396-983-01	HOLDER (M)	
13	4-396-952-01	MIRROR	
14	*X-4031-930-1	COVER ASSY, MIRROR	15
15	4-313-702-91	HANDLE	

8-2. CABINET (L) BLOCK

⊗ : 7-685-134-19 + P 2.6×8
☆ : 7-683-561-17 BLOT, WING 6×15
△ : 7-685-666-79 + PTP 4×30
● : 7-682-550-09 + B 3×12
■ : 7-685-647-79 + BVTP 3×10
○ : 7-682-565-09 + B 4×16
□ : 7-621-775-00 + P 2.6×3
▲ : 7-685-147-19 + P 3×10
◇ : 7-685-248-19 + KTP 3×12
◆ : 7-682-570-09 + B 4×10
★ : 7-682-557-04 + B 5×14
◎ : 7-621-853-20 SCREW WOOD + K 3.1×10

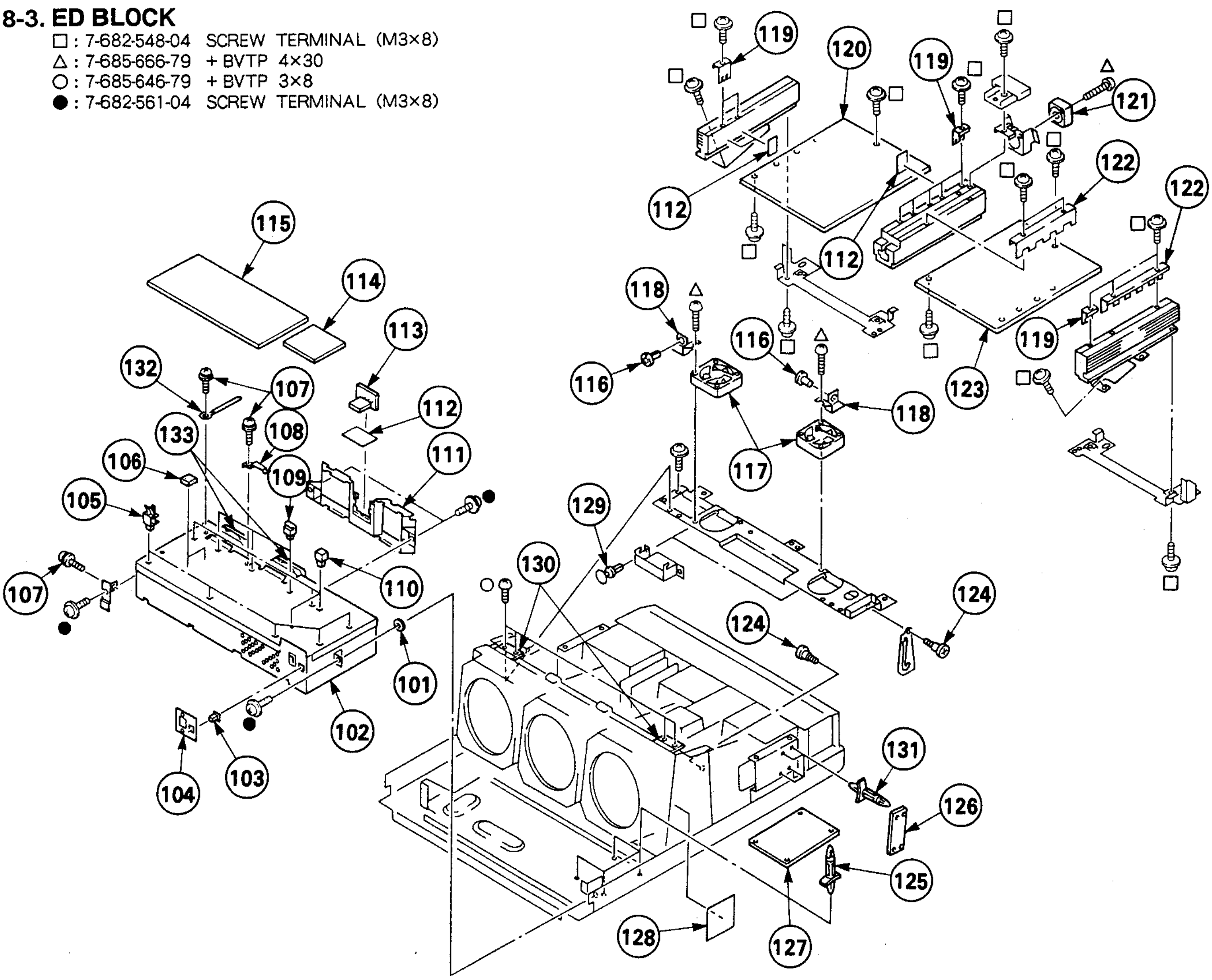


7-685-646-79
+ BVTP 3×8

REF.NO.	PART NO.	DESCRIPTION	REMARK
51	*X-4031-927-1	COVER ASSY, FRONT	52,53
52	4-838-438-00	LATCH	
53	*X-4029-024-1	DOOR ASSY, FRONT	
54	X-4029-026-1	GRILLE ASSY, SPEAKER	
55	X-4031-926-1	HOLDER (F) ASSY, CONTROL PANEL	56-58
56	4-314-871-00	CUSHION	
57	4-396-994-01	DOOR, CONTROL	
58	4-392-036-01	CATCHER, PUSH	
59	*4-396-950-01	COVER, SWITCH	
60	A-1499-936-A	PANEL ASSY, CONTROL	61-68
61	*A-1280-414-A	RC BOARD, COMPLETE	
62	*1-631-493-11	RCD BOARD	
63	*1-631-356-11	RCA BOARD	
64	4-395-509-01	SHEET, RUBBER	
65	4-395-501-01	KEY TOP	
66	*1-631-357-11	RCB BOARD	
67	*1-631-358-11	RCC BOARD	
68	4-395-508-01	CASE, LOWER	
69	4-396-260-11	BOLT, SOCKET HEXAGON	
70	3-701-983-00	BUSHING, AC CORD	
71	4-396-957-01	LENS (HD-116)	
72	4-396-989-02	ENCLOSURE (U.F)	
73	1-698-057-11	FAN, DC	
74	*X-4031-928-1	CABINET (L) ASSY	
75	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
76	1-503-917-11	SPEAKER	
77	*3-703-051-51	BIND, M4	
78	*A-1373-237-A	U BOARD, COMPLETE	
79	*A-1390-102-A	N BOARD, COMPLETE	
80	3-701-810-91	SCREW, TERMINAL	
81	4-045-377-01	CUSHION, SP	

8-3. ED BLOCK

□ : 7-682-548-04 SCREW TERMINAL (M3×8)
△ : 7-685-666-79 +BVTP 4×30
○ : 7-685-646-79 +BVTP 3×8
● : 7-682-561-04 SCREW TERMINAL (M3×8)



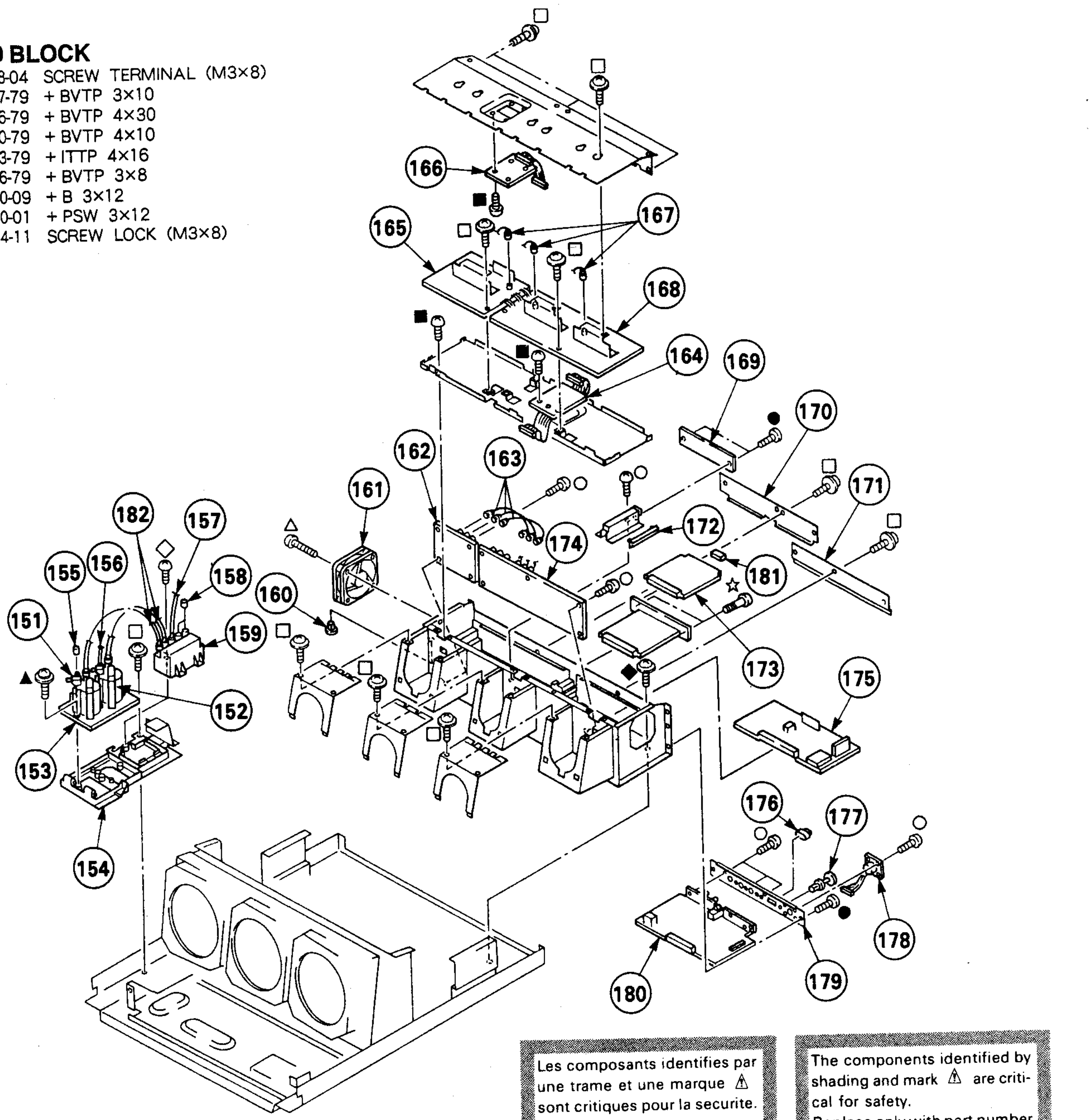
Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
101	4-308-030-00	WASHER	
102	⚠ 1-413-934-11	REGULATOR, SWITCHING (SOPS-1047)	(RVP-6010Q)
	⚠ 1-413-935-11	REGULATOR, SWITCHING (SOPS-1074)	(RVP-6010QM)
103	4-362-811-00	BUTTON, MAIN POWER	
104	*4-042-969-01	PLATE, POWER	
105	*3-703-141-00	HOLDER, PCB	
106	*4-398-732-01	CUSHION	
107	4-382-854-01	SCREW (M3X8), P, SW (+)	
108	*4-363-404-00	HOLDER, IC	
109	*3-659-682-00	HOLDER, PC BOARD	
110	*3-701-903-11	HOLDER, PC BOARD	
111	*4-042-902-01	DUCT, FAN	
112	4-393-406-01	SHEET (R), RADIATION	
113	*A-1190-196-A	PC BOARD, COMPLETE	
114	*A-1380-466-A	K BOARD, COMPLETE	
115	*A-1195-081-A	PA BOARD, COMPLETE	
116	*4-034-118-01	HOLDER (A), SENSOR	
117	1-698-057-11	FAN, DC	
118	*4-034-124-01	BRACKET (A), SENSOR	
119	*4-395-528-01	HOLDER (C), TR	
120	*A-1346-218-A	E BOARD, COMPLETE	
121	1-541-950-11	FAN, DC	
122	*4-395-553-01	HOLDER (A), TR	
123	*A-1346-217-A	DC BOARD, COMPLETE	
124	3-671-135-00	SCREW, STEP	
125	*3-703-353-07	SUPPORT, PC BOARD	
126	*A-1380-316-A	KB BOARD, COMPLETE	
127	*A-1240-970-A	F BOARD, COMPLETE	
128	*X-4395-575-1	PLATE ASSY, SHIELD	
129	4-374-303-01	RIVET, NYLON	
130	*3-658-816-00	HINGE, FRONT	
131	*3-703-353-03	SUPPORT, PC BOARD	
132	*4-908-882-01	CLAMP	
133	1-698-331-11	FAN, DC	

8-4. C CHIELD BLOCK

□ : 7-682-548-04 SCREW TERMINAL (M3×8)
■ : 7-685-647-79 + BVTP 3×10
△ : 7-685-666-79 + BVTP 4×30
◇ : 7-685-660-79 + BVTP 4×10
◆ : 7-685-663-79 + ITTP 4×16
○ : 7-685-646-79 + BVTP 3×8
● : 7-682-550-09 + B 3×12
▲ : 7-682-950-01 + PSW 3×12
☆ : 7-432-114-11 SCREW LOCK (M3×8)



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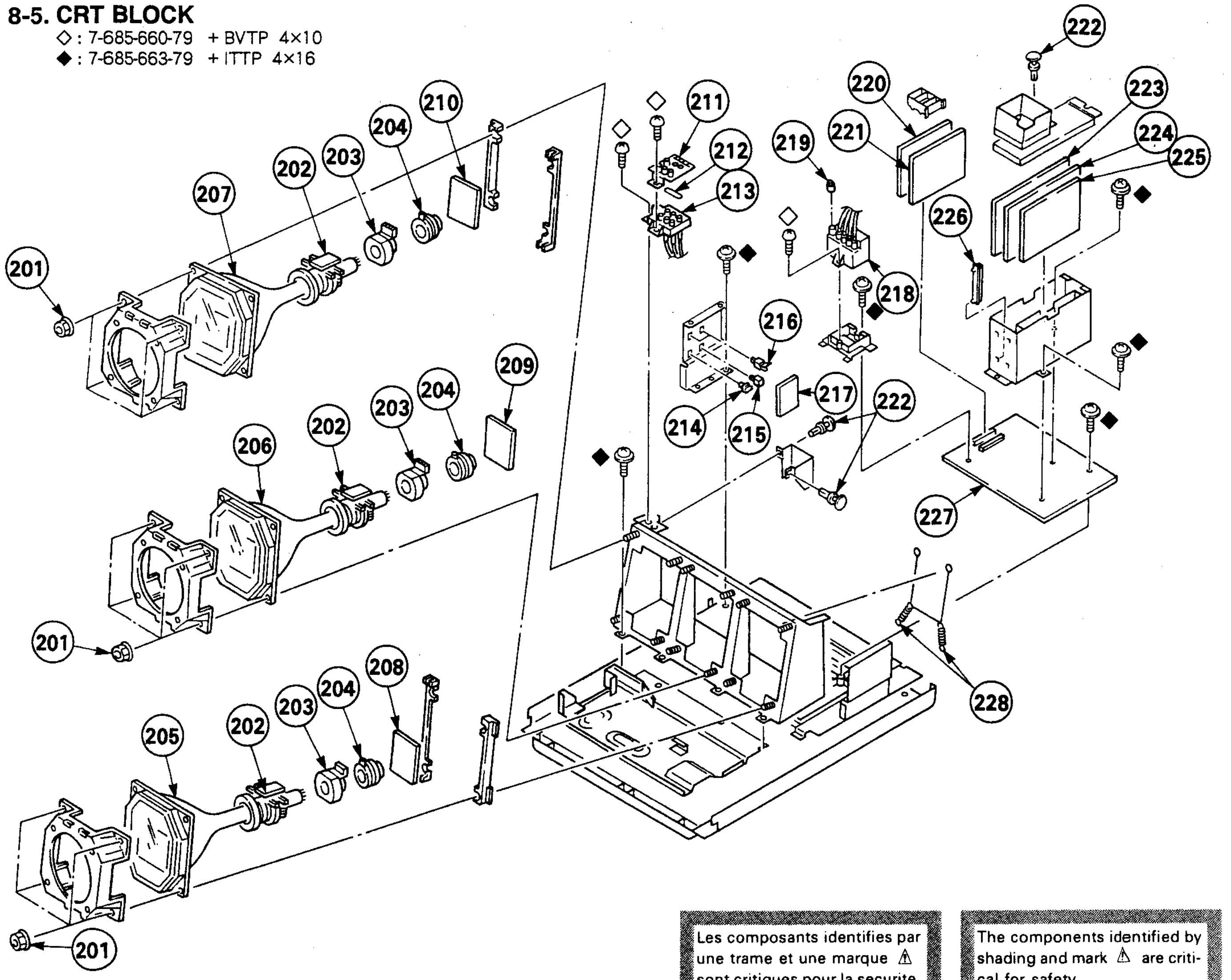
The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
151	⚠1-453-166-11	TRANSFORMER ASSY, FLYBACK (NX-3030B4)	
152	⚠1-453-166-11	TRANSFORMER ASSY, FLYBACK (NX-3030B4)	
153	*A-1190-195-A	PB BOARD, COMPLETE	
154	*4-043-149-01	BRACKET, HV	
155	4-042-892-01	CAP, MV	
156	⚠1-900-086-01	LEAD ASSY, HIGH-VOLTAGE	
157	⚠1-559-865-31	LEAD ASSY, HIGH-VOLTAGE	
158	4-373-137-01	CAP (Z), RUBBER	
159	⚠1-453-108-31	DC BLOCK, HIGH-VOLTAGE	
160	*4-034-118-01	HOLDER (A), SENSOR	
161	1-698-057-11	FAN, DC	
162	*A-1270-304-A	QM BOARD, COMPLETE	
163	*1-575-091-11	CABLE, P-P	
164	*A-1331-163-A	CFA BOARD, COMPLETE	
165	*A-1335-027-A	CA (B) BOARD, COMPLETE	
166	*A-1331-162-A	CFB BOARD, COMPLETE	
167	*1-555-110-00	CABLE, P-P	
168	*A-1335-026-A	CA (RG) BOARD, COMPLETE	
169	*4-395-530-01	PLATE (Q)	
170	*4-395-558-01	PLATE (Z)	
171	*4-395-559-11	PLATE (B)	
172	*4-360-309-11	SUPPORT, PC BOARD	
173	*A-1130-978-A	BC BOARD, COMPLETE	
174	*A-1130-976-A	BM BOARD, COMPLETE	
175	*A-1135-692-A	BA BOARD, COMPLETE	
176	*3-673-948-11	CAP, DUST	
177	4-374-303-01	RIVET, NYLON	
178	1-575-092-11	CONNECTOR ASSY, MULTI 14P	
179	4-395-583-01	PANEL (B), CONNECTOR	
180	*A-1135-789-A	BB BOARD, COMPLETE	
181	*4-353-708-00	HOOK, FINGER	
182	⚠1-559-865-41	LEAD ASSY, HIGH-VOLTAGE	

8-5. CRT BLOCK

◇ : 7-685-660-79 + BVTP 4×10
◆ : 7-685-663-79 + ITTP 4×16



Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
201	4-304-511-00	NUT (M5), FLANGE	
202	⚠1-451-355-11	DEFLECTION YOKE (Y636PJ)	
203	⚠1-452-730-11	NECK ASSEMBLY, PICTURTE TUBE (NA-3613)	
204	⚠1-452-429-31	NECK ASSY, PITURE TUBE (NA366)	
205	⚠8-736-062-05	PITURE TUBE 07MSJ(R)	
206	⚠8-736-060-05	PITURE TUBE 07MSJ(G)	
207	⚠8-736-061-05	PITURE TUBE 07MSJ(B)	
208	*A-1331-324-A	CBR BOARD, COMPLETE	
209	*A-1331-325-A	CBG BOARD, COMPLETE	
210	*A-1331-326-A	CBB BOARD, COMPLETE	
211	4-031-481-01	COVER, FOCUS PACK	
212	4-037-163-01	LABEL, SCREEN	
213	⚠1-241-744-21	RESISTOR ASSY (HIGH-VOLTAGE)	
214	*3-659-682-00	HOLDER, PC BOARD	
215	*3-703-141-00	HOLDER, PCB	
216	*3-701-903-11	HOLDER, PC BOARD	
217	*A-1380-473-A	KA BOARD, COMPLETE	
218	⚠1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
219	4-373-137-01	CAP (Z), RUBBER	
220	*A-1346-022-A	DD BOARD, COMPLETE	
221	*A-1346-208-A	DE BOARD, COMPLETE	
222	4-374-303-01	RIVET, NYLON	
223	*A-1346-189-A	DB BOARD, COMPLETE	
224	*A-1346-191-A	DA BOARD, COMPLETE	
225	*A-1394-325-A	Y BOARD, COMPLETE	
226	*4-360-309-11	SUPPORT, PC BOARD	
227	*A-1341-775-A	DM BOARD, COMPLETE	
228	4-303-774-99	SPRING	

SECTION 9
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- ✱ : Selected to yield optimum performance.
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1130-976-A	BM BOARD, COMPLETE ******************	
		<CONNECTOR>	
BM-1	*1-568-984-11	CONNECTOR, MALE 96P	
BM-2	*1-568-981-11	CONNECTOR, MALE 64P	
BM-3	*1-568-982-11	CONNECTOR, FEMALE 96P	
BM-4	*1-568-982-11	CONNECTOR, FEMALE 96P	
BM-5	*1-568-985-11	CONNECTOR, FEMALE 64P	
BM-6	*1-568-985-11	CONNECTOR, FEMALE 64P	
BM-7	*1-564-515-11	PLUG, CONNECTOR 12P	
BM-8	*1-568-979-11	CONNECTOR 30P	
BM-9	*1-564-509-11	PLUG, CONNECTOR 6P	
BM-10	*1-564-508-11	PLUG, CONNECTOR 5P	
		<JACK>	
J1	*1-526-575-00	SOCKET, PLUG 1P	
J2	*1-526-575-00	SOCKET, PLUG 1P	
J3	*1-526-575-00	SOCKET, PLUG 1P	
J4	*1-526-575-00	SOCKET, PLUG 1P	
J5	*1-526-575-00	SOCKET, PLUG 1P	
J6	*1-526-575-00	SOCKET, PLUG 1P	

****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1130-978-A	BC BOARD, COMPLETE ******************	
		<CONNECTOR>	
BC-101	*1-568-981-11	CONNECTOR, MALE 64P	
		<CAPACITOR>	
C101	1-101-004-00	CERAMIC 0.01MF 50V	
C102	1-101-004-00	CERAMIC 0.01MF 50V	
C103	1-101-004-00	CERAMIC 0.01MF 50V	
C104	1-101-004-00	CERAMIC 0.01MF 50V	
C105	1-124-927-11	ELECT 4.7MF 20% 50V	
C106	1-124-927-11	ELECT 4.7MF 20% 50V	
C107	1-124-927-11	ELECT 4.7MF 20% 50V	
C108	1-124-927-11	ELECT 4.7MF 20% 50V	
C109	1-126-101-11	ELECT 100MF 20% 16V	
C110	1-124-907-11	ELECT 10MF 20% 50V	
C111	1-101-004-00	CERAMIC 0.01MF 50V	
		<DIODE>	
D101	8-719-911-19	DIODE 1SS119	
D102	8-719-911-19	DIODE 1SS119	
D103	8-719-911-19	DIODE 1SS119	
D104	8-719-911-19	DIODE 1SS119	
D105	8-719-911-19	DIODE 1SS119	
D106	8-719-911-19	DIODE 1SS119	
D107	8-719-900-95	DIODE V09G	
		<IC>	
IC101	8-759-007-21	IC MC74HC4053N	
IC102	8-759-001-00	IC MC74HC132N	
IC103	8-759-001-00	IC MC74HC132N	
IC104	8-759-054-26	IC HD74HC123AP	
IC105	8-759-701-79	IC NJM7812FA	
		<COIL>	
L101	1-459-155-00	COIL (WITH CORE) 45UH	
		<TRANSISTOR>	
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q102	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q104	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q105	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		<RESISTOR>	
R101	1-247-807-31	CARBON 100 5% 1/4W	
R102	1-247-807-31	CARBON 100 5% 1/4W	
R103	1-249-437-11	CARBON 47K 5% 1/4W	
R104	1-249-437-11	CARBON 47K 5% 1/4W	
R105	1-249-437-11	CARBON 47K 5% 1/4W	
R106	1-249-429-11	CARBON 10K 5% 1/4W	
R107	1-249-421-11	CARBON 2.2K 5% 1/4W	
R108	1-249-429-11	CARBON 10K 5% 1/4W	
R109	1-249-429-11	CARBON 10K 5% 1/4W	
R110	1-249-429-11	CARBON 10K 5% 1/4W	
R111	1-249-437-11	CARBON 47K 5% 1/4W	
R112	1-247-807-31	CARBON 100 5% 1/4W	
R113	1-249-424-11	CARBON 3.9K 5% 1/4W	
R114	1-247-807-31	CARBON 100 5% 1/4W	
R115	1-249-437-11	CARBON 47K 5% 1/4W	
R116	1-249-424-11	CARBON 3.9K 5% 1/4W	
R117	1-249-429-11	CARBON 10K 5% 1/4W	
R118	1-249-435-11	CARBON 33K 5% 1/4W	
R119	1-249-435-11	CARBON 33K 5% 1/4W	
R120	1-249-421-11	CARBON 2.2K 5% 1/4W	
R121	1-249-429-11	CARBON 10K 5% 1/4W	
R122	1-249-429-11	CARBON 10K 5% 1/4W	

BC **BA**

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<RELAY>				
RY101	1-515-757-11	RELAY				
RY102	1-515-757-11	RELAY				
RY103	1-515-757-11	RELAY				
***						
	*A-1135-692-A	BA BOARD, COMPLETE ******************				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
		<CONNECTOR>				
BA-1	*1-568-984-11	CONNECTOR, MALE 96P				
		<TRAP MODULE>				
BPF1	1-236-366-11	MODULE, TRAP				
BPF2	1-236-365-11	MODULE, TRAP				
		<CAPACITOR>				
C1	1-124-910-11	ELECT	47MF	20%	50V	
C2	1-124-910-11	ELECT	47MF	20%	50V	
C3	1-124-910-11	ELECT	47MF	20%	50V	
C7	1-124-907-11	ELECT	10MF	20%	50V	
C8	1-124-122-11	ELECT	100MF	20%	50V	
C9	1-124-122-11	ELECT	100MF	20%	50V	
C10	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C11	1-124-907-11	ELECT	10MF	20%	50V	
C12	1-124-910-11	ELECT	47MF	20%	50V	
C13	1-124-910-11	ELECT	47MF	20%	50V	
C14	1-124-910-11	ELECT	47MF	20%	50V	
C15	1-124-910-11	ELECT	47MF	20%	50V	
C16	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C17	1-124-910-11	ELECT	47MF	20%	50V	
C18	1-124-910-11	ELECT	47MF	20%	50V	
C19	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C23	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C24	1-124-910-11	ELECT	47MF	20%	50V	
C25	1-124-910-11	ELECT	47MF	20%	50V	
C26	1-124-910-11	ELECT	47MF	20%	50V	
C27	1-124-910-11	ELECT	47MF	20%	50V	
C28	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C29	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C30	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C31	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C32	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C33	1-124-907-11	ELECT	10MF	20%	50V	
C34	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C35	1-163-093-00	CERAMIC CHIP	10PF	5%	50V	
C36	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C37	1-124-903-11	ELECT	1MF	20%	50V	
C39	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	
C40	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C41	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C42	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C43	1-124-907-11	ELECT	10MF	20%	50V	
C44	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C45	1-163-245-11	CERAMIC CHIP	56PF	5%	50V	
C46	1-124-119-00	ELECT	330MF	20%	16V	
C47	1-124-119-00	ELECT	330MF	20%	16V	
C48	1-163-035-00	CERAMIC CHIP	0.047MF		50V	
C49	1-136-153-00	FILM	0.01MF	5%	50V	
C50	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C51	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C52	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	
C53	1-163-241-11	CERAMIC CHIP	39PF	5%	50V	
C54	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C55	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C56	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C57	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	
C58	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C59	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C60	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C61	1-136-177-00	FILM	1MF	5%	50V	
C62	1-136-177-00	FILM	1MF	5%	50V	
C63	1-124-122-11	ELECT	100MF	20%	50V	
C67	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C68	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C69	1-163-120-00	CERAMIC CHIP	130PF	5%	50V	
C70	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C71	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C72	1-124-927-11	ELECT	4.7MF	20%	50V	
C73	1-124-903-11	ELECT	1MF	20%	50V	
C74	1-136-171-00	FILM	0.33MF	5%	50V	
C75	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C76	1-136-157-00	FILM	0.022MF	5%	50V	
C77	1-136-157-00	FILM	0.022MF	5%	50V	
C78	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	
C79	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C82	1-136-177-00	FILM	1MF	5%	50V	
C83	1-124-907-11	ELECT	10MF	20%	50V	
C84	1-124-910-11	ELECT	47MF	20%	50V	
C85	1-124-907-11	ELECT	10MF	20%	50V	
C86	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C87	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C88	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C89	1-164-161-11	CERAMIC CHIP	0.0022MF		50V	
C90	1-124-122-11	ELECT	100MF	20%	50V	
C91	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C104	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C106	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C201	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C202	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C203	1-136-157-00	FILM	0.022MF	5%	50V	
C205	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C207	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C208	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C211	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C212	1-163-224-11	CERAMIC CHIP	7PF	0.25PF	50V	
C213	1-124-122-11	ELECT	100MF	20%	50V	
C214	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C215	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C216	1-124-122-11	ELECT	100MF	20%	50V	
C217	1-124-122-11	ELECT	100MF	20%	50V	
C218	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C219	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C220	1-124-122-11	ELECT	100MF	20%	50V	
C221	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C222	1-124-122-11	ELECT	100MF	20%	50V	
C223	1-124-122-11	ELECT	100MF	20%	50V	
C224	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C229	1-124-907-11	ELECT	10MF	20%	50V	
C230	1-124-122-11	ELECT	100MF	20%	50V	
C231	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C234	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	

REF.NO.	PART NO.	DESCRIPTION			REMARK
C235	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C236	1-124-907-11	ELECT	10MF	20%	50V
C237	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C238	1-124-907-11	ELECT	10MF	20%	50V
C239	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C240	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C241	1-124-927-11	ELECT	4.7MF	20%	50V
C242	1-124-907-11	ELECT	10MF	20%	50V
C243	1-124-907-11	ELECT	10MF	20%	50V
C244	1-124-907-11	ELECT	10MF	20%	50V
C301	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C302	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C303	1-124-916-11	ELECT	22MF	20%	50V
C304	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C305	1-124-916-11	ELECT	22MF	20%	50V
C306	1-124-910-11	ELECT	47MF	20%	50V
C307	1-136-169-00	FILM	0.22MF	5%	50V
C308	1-124-902-00	ELECT	0.47MF	20%	50V
C309	1-124-902-00	ELECT	0.47MF	20%	50V
C310	1-124-902-00	ELECT	0.47MF	20%	50V
C311	1-124-916-11	ELECT	22MF	20%	50V
C312	1-124-910-11	ELECT	47MF	20%	50V
C313	1-124-910-11	ELECT	47MF	20%	50V
C314	1-124-910-11	ELECT	47MF	20%	50V
C315	1-124-910-11	ELECT	47MF	20%	50V
C316	1-124-902-00	ELECT	0.47MF	20%	50V
C317	1-126-101-11	ELECT	100MF	20%	16V
C318	1-124-910-11	ELECT	47MF	20%	50V
C319	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C320	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C321	1-124-907-11	ELECT	10MF	20%	50V
C322	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C323	1-124-907-11	ELECT	10MF	20%	50V
C324	1-124-902-00	ELECT	0.47MF	20%	50V
C325	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C326	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C327	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C328	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C329	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C330	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C331	1-136-177-00	FILM	1MF	5%	50V
C332	1-136-169-00	FILM	0.22MF	5%	50V
C333	1-124-907-11	ELECT	10MF	20%	50V
C334	1-124-910-11	ELECT	47MF	20%	50V
C335	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C336	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C337	1-163-089-00	CERAMIC CHIP	6PF	0.25PF	50V
C338	1-124-907-11	ELECT	10MF	20%	50V
C339	1-124-903-11	ELECT	1MF	20%	50V
C340	1-124-903-11	ELECT	1MF	20%	50V
C341	1-124-907-11	ELECT	10MF	20%	50V
C342	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C343	1-124-910-11	ELECT	47MF	20%	50V
C344	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C346	1-124-907-11	ELECT	10MF	20%	50V
C347	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C350	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C351	1-124-903-11	ELECT	1MF	20%	50V
C352	1-124-907-11	ELECT	10MF	20%	50V

<TRIMMER>

CT101	1-141-181-11	CAP, TRIMMER
CT102	1-141-181-11	CAP, TRIMMER

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<DIODE>	
D1	8-719-801-78	DIODE 1SS184	
D2	8-719-801-78	DIODE 1SS184	
D3	8-719-801-78	DIODE 1SS184	
D4	8-719-801-78	DIODE 1SS184	
D5	8-719-801-78	DIODE 1SS184	
D6	8-719-104-34	DIODE 1S2836	
D7	8-719-801-78	DIODE 1SS184	
D8	8-719-801-78	DIODE 1SS184	
D9	8-719-801-78	DIODE 1SS184	
D10	8-719-801-78	DIODE 1SS184	
D11	8-719-800-76	DIODE 1SS226	
D12	8-719-801-78	DIODE 1SS184	
D13	8-719-801-78	DIODE 1SS184	
D14	8-719-801-78	DIODE 1SS184	
D101	8-719-105-46	DIODE RD3.3M-B2	
D102	8-719-105-82	DIODE RD5.1M-B2	
D103	8-719-801-78	DIODE 1SS184	
D107	8-719-801-78	DIODE 1SS184	
D108	8-719-900-95	DIODE V09G	
D109	8-719-900-95	DIODE V09G	
D110	8-719-105-99	DIODE RD6.2M-B1	
D112	8-719-801-78	DIODE 1SS184	
D113	8-719-801-78	DIODE 1SS184	
D118	8-719-104-34	DIODE 1S2836	
D119	8-719-801-78	DIODE 1SS184	
D130	8-719-801-78	DIODE 1SS184	
D132	8-719-104-34	DIODE 1S2836	
D201	8-719-801-78	DIODE 1SS184	
D301	8-719-801-78	DIODE 1SS184	
D303	8-719-801-78	DIODE 1SS184	
D304	8-719-105-63	DIODE RD4.3M-B1	
D350	8-719-801-78	DIODE 1SS184	
D351	8-719-801-78	DIODE 1SS184	
D352	8-719-801-78	DIODE 1SS184	
		<DELAY LINE>	
DL101	1-415-122-31	DELAY LINE, 1H (PAL)	
DL102	1-402-679-11	DELAY LINE	
DL103	1-415-494-11	DELAY LINE, Y	
DL104	1-415-494-11	DELAY LINE, Y	
		<FILTER>	
FL1	1-236-164-11	ENCAPSULATED COMPONENT	
FL2	1-236-620-11	FILTER, LOW PASS	
FL3	1-236-620-11	FILTER, LOW PASS	
FL4	1-236-620-11	FILTER, LOW PASS	
		<IC>	
IC1	8-759-300-71	IC HD14053BFP	
IC2	8-759-513-47	IC TDA4555/V1	
IC3	8-759-932-16	IC TDA4565	
IC5	8-759-710-42	IC NJM2228M	
IC6	8-759-208-94	IC CX-894	
IC7	8-759-300-71	IC HD14053BFP	
IC8	8-752-034-85	IC CXA1216P	
IC9	8-759-100-96	IC UPC4558G2	
IC10	8-741-765-01	IC SBX1765-01	
IC11	8-759-979-16	IC CX-7916	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
IC12	1-808-891-11	MODULE SNY-9202	
IC13	8-759-100-96	IC UPC4558G2	
IC14	8-759-929-84	IC SN74LS12NS	
IC15	1-809-576-11	MODULE, H8B7178B	
IC16	8-759-701-79	IC NJM7812FA	
IC17	8-759-504-46	IC PQ05RF1	
IC19	8-759-926-06	IC SN74HC126ANS	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L101	1-410-470-11	INDUCTOR 10UH	
L102	1-410-209-51	INDUCTOR CHIP 27UH	
L103	1-410-466-41	INDUCTOR 4.7UH	
L104	1-408-406-00	INDUCTOR 5.6UH	
L105	1-404-539-11	COIL	
L106	1-404-554-11	COIL	
L107	1-404-554-11	COIL	
L108	1-404-554-11	COIL	
L109	1-408-397-00	INDUCTOR 1UH	
L110	1-410-466-41	INDUCTOR 4.7UH	
L111	1-410-466-41	INDUCTOR 4.7UH	
L112	1-410-466-41	INDUCTOR 4.7UH	
L114	1-459-155-00	COIL (WITH CORE) 45UH	
L115	1-459-155-00	COIL (WITH CORE) 45UH	
L116	1-410-466-41	INDUCTOR 4.7UH	
L120	1-404-584-11	COIL	
L136	1-408-777-00	INDUCTOR CHIP 10UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q2	8-729-901-01	TRANSISTOR DTC144EK	
Q3	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q7	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8	8-729-901-01	TRANSISTOR DTC144EK	
Q9	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q10	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q11	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q12	8-729-216-22	TRANSISTOR 2SA1162-G	
Q13	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q14	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q15	8-729-901-01	TRANSISTOR DTC144EK	
Q16	8-729-901-01	TRANSISTOR DTC144EK	
Q17	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q18	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q19	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q20	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q21	8-729-901-01	TRANSISTOR DTC144EK	
Q22	8-729-901-01	TRANSISTOR DTC144EK	
Q23	8-729-901-01	TRANSISTOR DTC144EK	
Q24	8-729-901-01	TRANSISTOR DTC144EK	
Q25	8-729-901-01	TRANSISTOR DTC144EK	
Q26	8-729-901-01	TRANSISTOR DTC144EK	
Q27	8-729-901-01	TRANSISTOR DTC144EK	
Q28	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q29	8-729-216-22	TRANSISTOR 2SA1162-G	
Q30	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q31	8-729-216-22	TRANSISTOR 2SA1162-G	
Q32	8-729-216-22	TRANSISTOR 2SA1162-G	
Q33	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q34	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q35	8-729-901-01	TRANSISTOR DTC144EK	
Q36	8-729-216-22	TRANSISTOR 2SA1162-G	
Q37	8-729-901-01	TRANSISTOR DTC144EK	
Q38	8-729-901-01	TRANSISTOR DTC144EK	
Q39	8-729-116-06	TRANSISTOR 2SK160-K6	
Q40	8-729-116-06	TRANSISTOR 2SK160-K6	
Q41	8-729-901-01	TRANSISTOR DTC144EK	
Q43	8-729-901-01	TRANSISTOR DTC144EK	
Q45	8-729-901-01	TRANSISTOR DTC144EK	
Q48	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q49	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q50	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q51	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q52	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q118	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q119	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q120	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q152	8-729-901-01	TRANSISTOR DTC144EK	
Q201	8-729-901-01	TRANSISTOR DTC144EK	
Q202	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q203	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q204	8-729-901-01	TRANSISTOR DTC144EK	
Q205	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q206	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q207	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q208	8-729-901-01	TRANSISTOR DTC144EK	
Q209	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q210	8-729-216-22	TRANSISTOR 2SA1162-G	
Q212	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q213	8-729-216-22	TRANSISTOR 2SA1162-G	
Q301	8-729-140-96	TRANSISTOR 2SD774-34	
Q302	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q303	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q304	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q305	8-729-901-01	TRANSISTOR DTC144EK	
Q306	8-729-901-01	TRANSISTOR DTC144EK	
Q307	8-729-901-01	TRANSISTOR DTC144EK	
Q308	8-729-901-01	TRANSISTOR DTC144EK	
Q309	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q310	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q311	8-729-901-01	TRANSISTOR DTC144EK	
Q312	8-729-901-01	TRANSISTOR DTC144EK	
Q313	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q314	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q315	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q316	8-729-901-01	TRANSISTOR DTC144EK	
Q317	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q318	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q319	8-729-901-01	TRANSISTOR DTC144EK	
Q320	8-729-901-01	TRANSISTOR DTC144EK	
Q321	8-729-901-01	TRANSISTOR DTC144EK	
Q323	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q324	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q325	8-729-901-01	TRANSISTOR DTC144EK	
Q326	8-729-901-01	TRANSISTOR DTC144EK	
Q327	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q329	8-729-116-06	TRANSISTOR 2SK160-K6	
Q330	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q336	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q337	8-729-216-22	TRANSISTOR 2SA1162-G	
Q338	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q340	8-729-901-01	TRANSISTOR DTC144EK	
Q350	8-729-901-01	TRANSISTOR DTC144EK	
Q351	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q352	8-729-230-49	TRANSISTOR 2SC2712-YG	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R2	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R3	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R4	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R6	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R7	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R8	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R11	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R12	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R13	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R14	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R15	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R16	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R17	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R18	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R19	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R20	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R21	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R22	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R23	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R24	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R25	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R26	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R27	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R29	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R30	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R31	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R32	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R33	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R34	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R38	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R39	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R40	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R41	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R42	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R43	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R44	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R45	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R46	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R47	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R48	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R49	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R50	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R51	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R52	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R53	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R54	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R55	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R56	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R57	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R58	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R59	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R60	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R61	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R63	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R64	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R65	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R66	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R67	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R68	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R69	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R70	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R71	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R72	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R73	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R74	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R75	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R76	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R77	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R78	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R80	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R81	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R82	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R83	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R84	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R85	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R86	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R87	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R88	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R89	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R90	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R91	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R92	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R93	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R94	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R95	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R101	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R102	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R103	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R104	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R105	1-216-066-00	METAL GLAZE	5.1K	5%	1/10W	
R106	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R107	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R108	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R116	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R117	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R118	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R119	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R120	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R121	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R122	1-208-812-11	METAL CHIP	18K	0.50%	1/10W	
R123	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R124	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R125	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R126	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R127	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R128	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R129	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R130	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R131	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R132	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R133	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R134	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R135	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R141	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R142	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R143	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R145	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R146	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R148	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R149	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R150	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R201	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R202	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R203	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R204	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R205	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R206	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R207	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R208	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R209	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R210	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R211	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R212	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R213	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R214	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R215	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R216	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R217	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R218	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R219	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R220	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R221	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R222	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R223	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R224	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R225	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R226	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R227	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R228	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R229	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R230	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R231	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R232	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R233	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R234	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R235	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R236	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R237	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R238	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R239	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R240	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R241	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R242	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R244	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R290	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R301	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R302	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R303	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R304	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R305	1-216-005-00	METAL GLAZE	15	5%	1/10W	
R306	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R307	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R308	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R309	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R310	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R311	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R312	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R313	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R314	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R315	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R316	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R317	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R318	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R319	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R320	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R321	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R322	1-216-689-11	METAL CHIP	39K	0.50%	1/10W	
R323	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R324	1-208-812-11	METAL CHIP	18K	0.50%	1/10W	
R325	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R326	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R327	1-208-812-11	METAL CHIP	18K	0.50%	1/10W	
R328	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R329	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R330	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R331	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R332	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R333	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R334	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R335	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R336	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R337	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R338	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R339	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R340	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R341	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R342	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R343	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R344	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R345	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R346	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R347	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R348	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R349	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R350	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R351	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R352	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R353	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R354	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R355	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R356	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R357	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R358	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R359	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R360	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R361	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R362	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R363	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R364	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R365	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R366	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R367	1-208-812-11	METAL CHIP	18K	0.50%	1/10W	
R368	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R369	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R370	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R371	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R372	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R373	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R374	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R375	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R376	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R377	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R378	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R379	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R380	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R381	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R382	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R383	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R384	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R385	1-208-812-11	METAL CHIP	18K	0.50%	1/10W	
R386	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R387	1-216-635-11	METAL CHIP	220	0.50%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R388	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R389	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R390	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R391	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R392	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R393	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R394	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R395	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R396	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R397	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R398	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R399	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R410	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R411	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R412	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R415	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R416	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R417	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R418	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R419	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R420	1-216-085-00	METAL GLAZE	33K	5%	1/10W	

<VARIABLE RESISTOR>

RV101	1-230-504-11	RES, ADJ, CARBON 220
RV102	1-228-993-00	RES, ADJ, CARBON 4.7K
RV103	1-228-997-00	RES, ADJ, METAL GLAZE 100K
RV104	1-228-997-00	RES, ADJ, METAL GLAZE 100K
RV105	1-228-993-00	RES, ADJ, CARBON 4.7K

<SWITCH>

SW-1	1-570-859-11	SWITCH, SLIDE

<THERMISTER>

TH101	1-800-071-99	THERMISTER

<CRYSTAL>

X101	1-567-307-11	OSCILLATOR, CRYSTAL
X102	1-567-131-00	OSCILLATOR, CRYSTAL

****

*A-1135-789-A BB BOARD, COMPLETE
****

4-382-854-11 SCREW (M3X10), P, SW (+)

<CONNECTOR>

BB-1	*1-568-984-11	CONNECTOR, MALE 96P
BB-2	1-564-595-11	PLUG, CONNECTOR 14P

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C402	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C404	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C405	1-126-101-11	ELECT	100MF	20%	16V	
C406	1-124-120-11	ELECT	220MF	20%	16V	
C407	1-126-101-11	ELECT	100MF	20%	16V	
C408	1-124-907-11	ELECT	10MF	20%	50V	
C409	1-126-101-11	ELECT	100MF	20%	16V	
C412	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C413	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C414	1-124-907-11	ELECT	10MF	20%	50V	
C415	1-126-101-11	ELECT	100MF	20%	16V	
C416	1-126-101-11	ELECT	100MF	20%	16V	
C417	1-124-120-11	ELECT	220MF	20%	16V	
C418	1-126-101-11	ELECT	100MF	20%	16V	
C419	1-126-101-11	ELECT	100MF	20%	16V	
C425	1-126-101-11	ELECT	100MF	20%	16V	
C450	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C451	1-126-103-11	ELECT	470MF	20%	16V	
C453	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C501	1-124-907-11	ELECT	10MF	20%	50V	
C502	1-124-907-11	ELECT	10MF	20%	50V	
C503	1-124-477-11	ELECT	47MF	20%	16V	
C504	1-124-477-11	ELECT	47MF	20%	16V	
C505	1-124-927-11	ELECT	4.7MF	20%	50V	
C506	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C507	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C508	1-124-477-11	ELECT	47MF	20%	16V	
C509	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C510	1-124-477-11	ELECT	47MF	20%	16V	
C511	1-126-103-11	ELECT	470MF	20%	16V	
C512	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C513	1-124-477-11	ELECT	47MF	20%	16V	
C514	1-124-927-11	ELECT	4.7MF	20%	50V	
C515	1-124-927-11	ELECT	4.7MF	20%	50V	
C516	1-124-927-11	ELECT	4.7MF	20%	50V	
C518	1-124-907-11	ELECT	10MF	20%	50V	
C519	1-124-907-11	ELECT	10MF	20%	50V	
C520	1-124-903-11	ELECT	1MF	20%	50V	
C521	1-124-907-11	ELECT	10MF	20%	50V	
C522	1-124-907-11	ELECT	10MF	20%	50V	
C523	1-163-833-00	CERAMIC CHIP	0.068MF		25V	
C524	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C525	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C526	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C527	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C528	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C529	1-124-916-11	ELECT	22MF	20%	50V	
C530	1-124-477-11	ELECT	47MF	20%	16V	
C650	1-124-657-00	ELECT	10MF	20%	50V	
C651	1-136-169-00	FILM	0.22MF	5%	50V	
C652	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C653	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C654	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C655	1-124-910-11	ELECT	47MF	20%	50V	
C657	1-126-103-11	ELECT	470MF	20%	16V	
C658	1-124-122-11	ELECT	100MF	20%	50V	
C660	1-124-907-11	ELECT	10MF	20%	50V	
C692	1-124-122-11	ELECT	100MF	20%	50V	
C693	1-124-122-11	ELECT	100MF	20%	50V	
C694	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C695	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C696	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C697	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C700	1-124-657-00	ELECT	10MF	20%	50V	
C701	1-136-169-00	FILM	0.22MF	5%	50V	
C702	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C703	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C707	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C708	1-124-910-11	ELECT	47MF	20%	50V	
C710	1-124-122-11	ELECT	100MF	20%	50V	
C711	1-126-103-11	ELECT	470MF	20%	16V	

BB

REF.NO.	PART NO.	DESCRIPTION	REMARK
C713	1-124-907-11	ELECT 10MF 20%	50V
C750	1-124-657-00	ELECT 10MF 20%	50V
C751	1-136-169-00	FILM 0.22MF 5%	50V
C752	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C753	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C754	1-126-101-11	ELECT 100MF 20%	16V
C755	1-126-101-11	ELECT 100MF 20%	16V
C756	1-126-101-11	ELECT 100MF 20%	16V
C757	1-124-910-11	ELECT 47MF 20%	50V
C759	1-124-122-11	ELECT 100MF 20%	50V
C760	1-126-103-11	ELECT 470MF 20%	16V
C762	1-124-916-11	ELECT 22MF 20%	50V
C763	1-124-907-11	ELECT 10MF 20%	50V
C914	1-126-101-11	ELECT 100MF 20%	16V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D401	8-719-900-95	DIODE V09G	
D402	8-719-900-95	DIODE V09G	
D450	8-719-801-78	DIODE 1SS184	
D451	8-719-801-78	DIODE 1SS184	
D452	8-719-105-28	DIODE RD2.4M-B	
D501	8-719-801-78	DIODE 1SS184	
D502	8-719-801-78	DIODE 1SS184	
D503	8-719-801-78	DIODE 1SS184	
D504	8-719-105-82	DIODE RD5.1M-B2	
D505	8-719-911-19	DIODE 1SS119	
D506	8-719-105-82	DIODE RD5.1M-B2	
D507	8-719-105-82	DIODE RD5.1M-B2	
D508	8-719-105-82	DIODE RD5.1M-B2	
D509	8-719-105-82	DIODE RD5.1M-B2	
D510	8-719-105-82	DIODE RD5.1M-B2	
D511	8-719-105-82	DIODE RD5.1M-B2	
D512	8-719-105-82	DIODE RD5.1M-B2	
D513	8-719-105-82	DIODE RD5.1M-B2	
D514	8-719-105-82	DIODE RD5.1M-B2	
D515	8-719-105-82	DIODE RD5.1M-B2	
D516	8-719-106-80	DIODE RD13M-B2	
D518	8-719-106-80	DIODE RD13M-B2	
D520	8-719-105-82	DIODE RD5.1M-B2	
D521	8-719-105-82	DIODE RD5.1M-B2	
D522	8-719-106-80	DIODE RD13M-B2	
D523	8-719-106-80	DIODE RD13M-B2	
D524	8-719-105-82	DIODE RD5.1M-B2	
D525	8-719-105-28	DIODE RD2.4M-B	
D526	8-719-801-78	DIODE 1SS184	
D527	8-719-105-82	DIODE RD5.1M-B2	
D528	8-719-801-78	DIODE 1SS184	
D529	8-719-105-46	DIODE RD3.3M-B2	
D530	8-719-801-78	DIODE 1SS184	
D634	8-719-801-78	DIODE 1SS184	
D652	8-719-801-78	DIODE 1SS184	
D653	8-719-801-78	DIODE 1SS184	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC401	8-759-800-81	IC LA7016	
IC402	8-759-701-79	IC NJM7812FA	
IC403	8-759-929-65	IC LM7912CT	
IC404	8-759-300-71	IC HD14053BFP	
IC405	8-759-926-18	IC SN74HC157ANS	
IC407	8-759-926-18	IC SN74HC157ANS	
IC408	8-759-300-71	IC HD14053BFP	
IC409	8-759-300-71	IC HD14053BFP	
IC410	8-759-100-96	IC UPC4558G2	
IC411	8-759-100-96	IC UPC4558G2	
IC412	8-759-145-27	IC UPC1406HA	
IC413	8-749-922-84	IC BX-6474	
IC414	8-749-922-83	IC BX-6473	
IC415	8-749-922-83	IC BX-6473	
IC416	8-749-922-83	IC BX-6473	
IC417	8-749-922-86	IC BX-7913	
IC418	8-749-922-85	IC BX-6475	
IC419	8-749-922-85	IC BX-6475	
IC420	8-749-922-85	IC BX-6475	
IC422	8-759-100-93	IC UPC393G2	
IC423	8-759-925-85	IC SN74HC32ANS	
IC424	8-759-100-93	IC UPC393G2	

<JACK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J101	1-566-980-21	CONNECTOR, ROUND TYPE 4P	
J102	1-537-257-11	TERMINAL BOARD, INPUT/OUTPUT	
J103	1-537-403-11	TERMINAL BOARD, INPUT/OUTPUT	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L401	1-459-155-00	COIL (WITH CORE) 45UH	
L402	1-459-155-00	COIL (WITH CORE) 45UH	
L403	1-459-155-00	COIL (WITH CORE) 45UH	
L404	1-459-155-00	COIL (WITH CORE) 45UH	
L405	1-410-671-31	INDUCTOR 47UH	
L605	1-410-482-31	INDUCTOR 100UH	
L651	1-410-482-31	INDUCTOR 100UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q401	8-729-140-96	TRANSISTOR 2SD774-34	
Q402	8-729-140-97	TRANSISTOR 2SB734-34	
Q403	8-729-901-01	TRANSISTOR DTC144EK	
Q404	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q405	8-729-901-01	TRANSISTOR DTC144EK	
Q450	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q451	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q452	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q453	8-729-901-01	TRANSISTOR DTC144EK	
Q454	8-729-901-01	TRANSISTOR DTC144EK	
Q456	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q457	8-729-216-22	TRANSISTOR 2SA1162-G	
Q501	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q502	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q503	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q504	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q506	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q507	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q508	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q509	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q510	8-729-901-01	TRANSISTOR DTC144EK	
Q511	8-729-901-01	TRANSISTOR DTC144EK	
Q512	8-729-901-01	TRANSISTOR DTC144EK	
Q513	8-729-901-01	TRANSISTOR DTC144EK	
Q514	8-729-901-01	TRANSISTOR DTC144EK	
Q515	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q516	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q517	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q518	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q519	8-729-230-49	TRANSISTOR 2SC2712-YG	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q520	8-729-901-01	TRANSISTOR DTC144EK	
Q521	8-729-901-01	TRANSISTOR DTC144EK	
Q522	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q523	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q524	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q525	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q526	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q527	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q528	8-729-901-01	TRANSISTOR DTC144EK	
Q529	8-729-901-01	TRANSISTOR DTC144EK	
Q530	8-729-901-01	TRANSISTOR DTC144EK	
Q531	8-729-901-01	TRANSISTOR DTC144EK	
Q532	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q533	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q534	8-729-320-62	TRANSISTOR 2SD789-34	
Q535	8-729-901-01	TRANSISTOR DTC144EK	
Q536	8-729-901-01	TRANSISTOR DTC144EK	
Q537	8-729-901-01	TRANSISTOR DTC144EK	
Q538	8-729-901-01	TRANSISTOR DTC144EK	
Q539	8-729-901-01	TRANSISTOR DTC144EK	
Q540	8-729-901-01	TRANSISTOR DTC144EK	
Q541	8-729-901-01	TRANSISTOR DTC144EK	
Q542	8-729-901-01	TRANSISTOR DTC144EK	
Q543	8-729-901-01	TRANSISTOR DTC144EK	
Q544	8-729-901-01	TRANSISTOR DTC144EK	
Q545	8-729-216-22	TRANSISTOR 2SA1162-G	
Q546	8-729-901-01	TRANSISTOR DTC144EK	
Q547	8-729-216-22	TRANSISTOR 2SA1162-G	
Q548	8-729-901-01	TRANSISTOR DTC144EK	
Q549	8-729-901-01	TRANSISTOR DTC144EK	
Q550	8-729-901-01	TRANSISTOR DTC144EK	
Q551	8-729-901-01	TRANSISTOR DTC144EK	
Q552	8-729-901-01	TRANSISTOR DTC144EK	
Q553	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q650	8-729-116-05	TRANSISTOR 2SK160-K5	
Q651	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q652	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q653	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q654	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q656	8-729-901-01	TRANSISTOR DTC144EK	
Q700	8-729-116-05	TRANSISTOR 2SK160-K5	
Q701	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q702	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q703	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q704	8-729-923-06	TRANSISTOR FMW-8	
Q705	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q706	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q707	8-729-923-06	TRANSISTOR FMW-8	
Q708	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q709	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q710	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q741	8-729-901-01	TRANSISTOR DTC144EK	
Q750	8-729-116-05	TRANSISTOR 2SK160-K5	
Q751	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q752	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q753	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q754	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q755	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q756	8-729-901-01	TRANSISTOR DTC144EK	
Q757	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q800	8-729-230-49	TRANSISTOR 2SC2712-YG	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R401	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R403	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R404	1-216-693-11	METAL CHIP 56K 0.50% 1/10W	
R405	1-216-691-11	METAL CHIP 47K 0.50% 1/10W	
R450	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R451	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R452	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R453	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R454	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R455	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R456	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R459	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R460	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R461	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R462	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R463	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R464	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R466	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R467	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R468	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R469	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R470	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R471	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R472	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R473	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R474	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R501	1-216-624-11	METAL CHIP 75 0.50% 1/10W	
R502	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R503	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R504	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R505	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R506	1-216-624-11	METAL CHIP 75 0.50% 1/10W	
R507	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R508	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R509	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R510	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R511	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R512	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R513	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R514	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R516	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R518	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R519	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R520	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R521	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R522	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R523	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R524	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R525	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R526	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R527	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R528	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R529	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R530	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R531	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R532	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R533	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R534	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R535	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R536	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R537	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R538	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R539	1-216-643-11	METAL CHIP 470 0.50% 1/10W	

BB

REF.NO.	PART NO.	DESCRIPTION				REMARK
R540	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R541	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R542	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R543	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R544	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R545	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R546	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R547	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R548	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R549	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R550	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R551	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R552	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R553	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R554	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R555	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R556	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R557	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R558	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R559	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R560	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R561	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R562	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R563	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R564	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R565	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R566	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R567	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R568	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R569	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R570	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R571	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R572	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R573	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R574	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R575	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R576	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R577	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R578	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R579	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R580	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R581	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R582	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R583	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R584	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R585	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R586	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R587	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R588	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R589	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R590	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R591	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R592	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R593	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R594	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R597	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R598	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R599	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R600	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R601	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R602	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R603	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R604	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R605	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R606	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R607	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R608	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R609	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R610	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R611	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R612	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R613	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R614	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R615	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R616	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R617	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R618	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R619	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R620	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R621	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R622	1-216-448-11	METAL OXIDE	39	5%	2W	F
R623	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R624	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R625	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R626	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R627	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R628	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R629	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R630	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R631	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R632	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R633	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R634	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R635	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R636	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R637	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R638	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R639	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R640	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R641	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R642	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R643	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R650	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R651	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R652	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R653	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R654	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R655	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R656	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R657	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R658	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R659	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R660	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R661	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R663	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R664	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R665	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R686	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R688	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R689	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R690	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R700	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R701	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R702	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R703	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R704	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R705	1-216-627-11	METAL CHIP	100	0.50%	1/10W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R706	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R707	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R708	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R709	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R710	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R711	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R712	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R713	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R714	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R715	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R716	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R717	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R718	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R719	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R720	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R721	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R722	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R723	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R724	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R725	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R727	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R728	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R729	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R750	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R751	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R752	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R753	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R755	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R756	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R757	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R758	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R759	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R760	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R761	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R762	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R763	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R764	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R765	1-216-624-11	METAL CHIP	75	0.50%	1/10W	
R766	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R768	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R769	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R770	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R791	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R836	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R837	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R900	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

<RELAY>

REF.NO.	PART NO.	DESCRIPTION
RL401	1-515-757-11	RELAY
RL402	1-515-757-11	RELAY
RL403	1-515-757-11	RELAY

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION
SW101	1-570-859-11	SWITCH, SLIDE

****

*A-1190-195-A PB BOARD, COMPLETE
****

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN241	*1-564-506-11	PLUG, CONNECTOR 3P	

<FLYBACK TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
FBT10⚠	1-453-166-11	TRANSFORMER ASSY, FLYBACK (NX-3030B4)	
FBT11⚠	1-453-166-11	TRANSFORMER ASSY, FLYBACK (NX-3030B4)	

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
NL10	1-519-108-99	LAMP, NEON	
NL11	1-519-108-99	LAMP, NEON	

****

*A-1190-196-A PC BOARD, COMPLETE
****

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1	8-729-820-71	TRANSISTOR 2SC3998CA	

****

*A-1195-081-A PA BOARD, COMPLETE
****

4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1	1-124-903-11	ELECT	1MF	20%	50V	
C2	1-124-903-11	ELECT	1MF	20%	50V	
C3	1-124-927-11	ELECT	4.7MF	20%	50V	
C4	1-124-927-11	ELECT	4.7MF	20%	50V	
C5	1-124-927-11	ELECT	4.7MF	20%	50V	
C6	1-124-927-11	ELECT	4.7MF	20%	50V	
C7	1-124-907-11	ELECT	10MF	20%	50V	
C8	1-130-471-00	FILM	0.001MF	5%	50V	
C9	1-104-792-51	ELECT	33MF	20%	16V	
C10	1-124-925-11	ELECT	2.2MF	20%	50V	
C11	1-136-165-00	FILM	0.1MF	5%	50V	
C12	1-124-907-11	ELECT	10MF	20%	50V	
C13	1-136-169-00	FILM	0.22MF	5%	50V	
C14	1-124-907-11	ELECT	10MF	20%	50V	
C15	1-124-119-00	ELECT	330MF	20%	16V	
C16	1-102-973-00	CERAMIC	100PF	5%	50V	
C17	1-136-165-00	FILM	0.1MF	5%	50V	
C18	1-136-165-00	FILM	0.1MF	5%	50V	
C19	1-136-165-00	FILM	0.1MF	5%	50V	
C20	1-136-165-00	FILM	0.1MF	5%	50V	
C21	1-101-004-00	CERAMIC	0.01MF		50V	
C22	1-102-973-00	CERAMIC	100PF	5%	50V	
C23	1-124-907-11	ELECT	10MF	20%	50V	
C24	1-124-907-11	ELECT	10MF	20%	50V	
C25	1-136-169-00	FILM	0.22MF	5%	50V	
C26	1-102-978-00	CERAMIC	220PF	5%	50V	
C27	1-124-907-11	ELECT	10MF	20%	50V	
C28	1-124-903-11	ELECT	1MF	20%	50V	
C29	1-124-907-11	ELECT	10MF	20%	50V	
C30	1-101-004-00	CERAMIC	0.01MF		50V	

PA

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C31	1-101-004-00	CERAMIC	0.01MF		50V
C32	1-102-973-00	CERAMIC	100PF	5%	50V
C33	1-102-973-00	CERAMIC	100PF	5%	50V
C34	1-102-973-00	CERAMIC	100PF	5%	50V
C35	1-124-119-00	ELECT	330MF	20%	16V
C36	1-137-364-11	FILM	0.001MF	5%	50V
C37	1-108-704-11	MYLAR	0.1MF	10%	200V
C38	1-124-903-11	ELECT	1MF	20%	50V
C39	1-124-903-11	ELECT	1MF	20%	50V
C40	1-137-366-11	FILM	0.0022MF	5%	50V
C41	1-126-600-11	ELECT	100MF	20%	160V
C42	⚠1-136-722-11	FILM	0.008MF	3%	1.6KV
C43	1-129-718-00	FILM	0.022MF	10%	630V
C45	1-137-364-11	FILM	0.001MF	5%	50V
C46	1-126-101-11	ELECT	100MF	20%	16V
C47	1-124-903-11	ELECT	1MF	20%	50V
C49	1-136-561-11	FILM	0.0068MF	10%	630V
C50	1-137-364-11	FILM	0.001MF	5%	50V
C51	1-126-600-11	ELECT	100MF	20%	160V
C52	1-126-600-11	ELECT	100MF	20%	160V
C53	1-102-030-00	CERAMIC	330PF	10%	500V
C54	⚠1-136-729-11	FILM	1.5MF	5%	400V
C55	1-124-903-11	ELECT	1MF	20%	50V
C56	1-108-692-11	MYLAR	0.01MF	10%	200V
C57	1-108-704-11	MYLAR	0.1MF	10%	200V
C58	1-124-477-11	ELECT	47MF	20%	16V
C59	1-136-165-00	FILM	0.1MF	5%	50V
C60	1-101-004-00	CERAMIC	0.01MF		50V
C61	1-101-004-00	CERAMIC	0.01MF		50V
C62	1-136-165-00	FILM	0.1MF	5%	50V
C63	1-136-165-00	FILM	0.1MF	5%	50V
C65	1-136-103-00	FILM	0.1MF	5%	200V
C67	1-101-004-00	CERAMIC	0.01MF		50V
C68	1-101-004-00	CERAMIC	0.01MF		50V
C70	1-101-004-00	CERAMIC	0.01MF		50V
C71	1-102-973-00	CERAMIC	100PF	5%	50V
C72	1-102-973-00	CERAMIC	100PF	5%	50V
C73	1-126-101-11	ELECT	100MF	20%	16V
C74	1-124-478-11	ELECT	100MF	20%	25V
C75	1-124-563-11	ELECT	2200MF	20%	25V
		<CONNECTOR>			
CN281	*1-564-518-11	PLUG, CONNECTOR 3P			
CN282	*1-564-520-11	PLUG, CONNECTOR 5P			
CN283	*1-564-526-11	PLUG, CONNECTOR 11P			
CN284	*1-564-528-11	PLUG, CONNECTOR 13P			
CN285	1-564-523-11	PLUG, CONNECTOR 8P			
CN286	*1-506-348-99	PIN, CONNECTOR 6P			
CN287	*1-564-521-11	PLUG, CONNECTOR 6P			
CN288	*1-564-518-11	PLUG, CONNECTOR 3P			
CN289	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
CN290	1-506-348-99	PIN, CONNECTOR 4P			
		<DIODE>			
D1	8-719-911-19	DIODE 1SS119			
D2	8-719-911-19	DIODE 1SS119			
D3	8-719-911-19	DIODE 1SS119			
D4	8-719-911-19	DIODE 1SS119			
D5	8-719-109-85	DIODE RD5.1ESB2			
D6	8-719-911-19	DIODE 1SS119			
D7	8-719-110-41	DIODE RD15ESB2			
D8	8-719-110-36	DIODE RD13ESB2			
D9	8-719-911-19	DIODE 1SS119			
D10	8-719-109-85	DIODE RD5.1ESB2			
D11	8-719-109-66	DIODE RD3.3ESB2			
D12	8-719-109-85	DIODE RD5.1ESB2			
D13	8-719-911-19	DIODE 1SS119			
D14	8-719-911-19	DIODE 1SS119			
D15	8-719-911-19	DIODE 1SS119			
D16	8-719-110-36	DIODE RD13ESB2			
D17	8-719-945-81	DIODE ERC06-15SA			
D18	8-719-911-19	DIODE 1SS119			
D19	8-719-945-81	DIODE ERC06-15SA			
D20	8-719-911-19	DIODE 1SS119			
D21	8-719-911-19	DIODE 1SS119			
D22	8-719-110-36	DIODE RD13ESB2			
D23	8-719-920-67	DIODE ERC91-02			
D24	8-719-911-19	DIODE 1SS119			
D25	8-719-911-19	DIODE 1SS119			
D26	8-719-920-67	DIODE ERC91-02			
D27	8-719-911-19	DIODE 1SS119			
D28	8-719-911-19	DIODE 1SS119			
D29	8-719-911-19	DIODE 1SS119			
D30	8-719-110-78	DIODE RD33ESB2			
D31	8-719-911-19	DIODE 1SS119			
D32	8-719-900-95	DIODE V09G			
D33	8-719-911-19	DIODE 1SS119			
D34	8-719-920-67	DIODE ERC91-02			
D35	8-719-911-19	DIODE 1SS119			
D36	8-719-110-36	DIODE RD13ESB2			
		<FERRITE BEAD>			
FB1	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH			
FB2	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH			
FB3	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH			
		<IC>			
IC1	8-759-503-91	IC TL082ACP			
IC2	8-759-103-93	IC UPC393C			
IC3	8-759-103-93	IC UPC393C			
IC4	8-759-103-93	IC UPC393C			
IC5	8-759-701-79	IC NJM7812FA			
IC6	8-759-929-65	IC LM7912CT			
IC7	8-759-240-40	IC TC4040BP			
IC8	8-759-045-72	IC MC14572UBCP			
IC9	8-759-140-11	IC UPD4011BC			
IC10	8-759-040-01	IC MC14001BCP			
IC11	8-759-503-91	IC TL082ACP			
IC12	8-759-103-93	IC UPC393C			
IC13	8-759-908-15	IC TL431CLP			
		<COIL>			
L1	⚠1-409-543-11	COIL, CHOKE	420UH		
L2	⚠1-409-543-11	COIL, CHOKE	420UH		
L3	1-459-614-11	COIL, CHOKE	90UH		
L4	1-459-614-11	COIL, CHOKE	90UH		
L5	1-459-155-00	COIL (WITH CORE)	45UH		
L6	1-459-155-00	COIL (WITH CORE)	45UH		
L7	1-412-521-31	INDUCTOR	4.7UH		
L8	1-412-521-31	INDUCTOR	4.7UH		
		<NEON LAMP>			

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK
NL1	1-519-108-99	LAMP, NEON				
		<TRANSISTOR>				
Q1	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q2	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q3	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q4	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q5	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q6	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q7	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q8	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q9	8-729-140-96	TRANSISTOR 2SD774-34				
Q10	8-729-140-97	TRANSISTOR 2SB734-34				
Q11	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q12	8-729-900-65	TRANSISTOR DTA144ES				
Q13	8-729-900-89	TRANSISTOR DTC144ES				
Q15	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q16	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q17	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q18	8-729-804-48	TRANSISTOR 2SC3675				
Q19	8-729-024-38	TRANSISTOR IRFIP250				
Q20	8-729-143-42	TRANSISTOR 2SK929				
Q21	8-729-207-89	TRANSISTOR 2SA1358-Y				
Q22	8-729-119-80	TRANSISTOR 2SC2688-LK				
		<RESISTOR>				
☒R1 ⚠		METAL			1/4W	
R2	1-249-433-11	CARBON	22K	5%	1/4W	
R3	1-249-439-11	CARBON	68K	5%	1/4W	
☒R4 ⚠		METAL			1/4W	
R5	1-249-433-11	CARBON	22K	5%	1/4W	
R6	1-249-439-11	CARBON	68K	5%	1/4W	
R7	1-249-433-11	CARBON	22K	5%	1/4W	
R8	1-249-433-11	CARBON	22K	5%	1/4W	
R9	1-249-423-11	CARBON	3.3K	5%	1/4W	
R10	1-249-429-11	CARBON	10K	5%	1/4W	
R12	1-249-429-11	CARBON	10K	5%	1/4W	
R13	1-249-429-11	CARBON	10K	5%	1/4W	
R14	1-249-429-11	CARBON	10K	5%	1/4W	
R15	1-249-433-11	CARBON	22K	5%	1/4W	
R16	1-249-425-11	CARBON	4.7K	5%	1/4W	
R17	1-247-807-31	CARBON	100	5%	1/4W	
R18	1-249-429-11	CARBON	10K	5%	1/4W	
R19	1-249-429-11	CARBON	10K	5%	1/4W	
R20	1-249-433-11	CARBON	22K	5%	1/4W	
R21	1-249-441-11	CARBON	100K	5%	1/4W	
R22	1-215-463-00	METAL	56K	1%	1/4W	
R23	1-215-455-00	METAL	27K	1%	1/4W	
R24	1-249-429-11	CARBON	10K	5%	1/4W	
R26	1-249-417-11	CARBON	1K	5%	1/4W	
R27	1-249-429-11	CARBON	10K	5%	1/4W	
R28	1-215-423-00	METAL	1.2K	1%	1/4W	
☒R29 ⚠		METAL			1/4W	
☒R30 ⚠		METAL			1/4W	
R31	1-249-436-11	CARBON	39K	5%	1/4W	
R32	1-215-473-00	METAL	150K	1%	1/4W	
☒R33 ⚠		METAL			1/4W	
☒R34 ⚠		METAL			1/4W	
R35	1-249-417-11	CARBON	1K	5%	1/4W	
R36	1-249-423-11	CARBON	3.3K	5%	1/4W	
R37	1-249-429-11	CARBON	10K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R38	1-249-429-11	CARBON	10K	5%	1/4W	
R39	1-249-429-11	CARBON	10K	5%	1/4W	
R41	1-249-431-11	CARBON	15K	5%	1/4W	
R42	1-249-417-11	CARBON	1K	5%	1/4W	
R43	1-215-461-00	METAL	47K	1%	1/4W	
R44	1-215-432-00	METAL	3K	1%	1/4W	
R45	1-215-432-00	METAL	3K	1%	1/4W	
R46	1-215-432-00	METAL	3K	1%	1/4W	
R47	1-215-432-00	METAL	3K	1%	1/4W	
R48	1-249-417-11	CARBON	1K	5%	1/4W	
R49	1-249-417-11	CARBON	1K	5%	1/4W	
R50	1-249-429-11	CARBON	10K	5%	1/4W	
R51	1-249-423-11	CARBON	3.3K	5%	1/4W	
R52	1-249-423-11	CARBON	3.3K	5%	1/4W	
R53	1-249-417-11	CARBON	1K	5%	1/4W	
R54	1-249-417-11	CARBON	1K	5%	1/4W	
R55	1-249-423-11	CARBON	3.3K	5%	1/4W	
R56	1-247-895-00	CARBON	470K	5%	1/4W	
R57	1-249-417-11	CARBON	1K	5%	1/4W	
R58	1-249-437-11	CARBON	47K	5%	1/4W	
R59	1-247-903-00	CARBON	1M	5%	1/4W	
R61	1-249-417-11	CARBON	1K	5%	1/4W	
R62	1-247-807-31	CARBON	100	5%	1/4W	
R63	1-249-411-11	CARBON	330	5%	1/4W	
R64	1-215-456-00	METAL	30K	1%	1/4W	
R65	1-215-445-00	METAL	10K	1%	1/4W	
R66	1-215-445-00	METAL	10K	1%	1/4W	
R67	1-247-903-00	CARBON	1M	5%	1/4W	
R68	1-249-417-11	CARBON	1K	5%	1/4W	
R69	1-215-455-00	METAL	27K	1%	1/4W	
R71	1-249-429-11	CARBON	10K	5%	1/4W	
R72	1-247-807-31	CARBON	100	5%	1/4W	
R73	1-249-423-11	CARBON	3.3K	5%	1/4W	
R74	1-249-417-11	CARBON	1K	5%	1/4W	
R75	1-247-807-31	CARBON	100	5%	1/4W	
R76	1-247-807-31	CARBON	100	5%	1/4W	
R77	1-247-720-11	CARBON	3.9K	5%	1/4W	F
R78	1-249-431-11	CARBON	15K	5%	1/4W	
R79	1-249-431-11	CARBON	15K	5%	1/4W	
R80	1-249-417-11	CARBON	1K	5%	1/4W	
R81	1-249-441-11	CARBON	100K	5%	1/4W	
R82	1-249-441-11	CARBON	100K	5%	1/4W	
R83	1-249-422-11	CARBON	2.7K	5%	1/4W	
R84	1-249-431-11	CARBON	15K	5%	1/4W	
R85	1-215-892-11	METAL OXIDE	1K	5%	2W	F
R86	1-215-921-11	METAL OXIDE	4.7K	5%	3W	F
R88	1-249-441-11	CARBON	100K	5%	1/4W	
R89	1-215-905-11	METAL OXIDE	10	5%	3W	F
R90	1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R91	1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R92	1-215-870-11	METAL OXIDE	1.5K	5%	1W	F
R93	1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R94	1-215-863-11	METAL OXIDE	100	5%	1W	F
R95	1-215-461-00	METAL	47K	1%	1/4W	
R96	1-249-437-11	CARBON	47K	5%	1/4W	
R97	1-249-433-11	CARBON	22K	5%	1/4W	
R98	1-215-863-11	METAL OXIDE	100	5%	1W	F
R99	1-247-725-11	CARBON	10K	5%	1/4W	F
R101	1-247-807-31	CARBON	100	5%	1/4W	
R102	1-249-441-11	CARBON	100K	5%	1/4W	
R103	1-249-417-11	CARBON	1K	5%	1/4W	
R104	1-249-441-11	CARBON	100K	5%	1/4W	
R105	1-249-429-11	CARBON	10K	5%	1/4W	
R106	1-249-425-11	CARBON	4.7K	5%	1/4W	

- The components identified by ☒ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R107	1-249-433-11	CARBON	22K	5%	1/4W	
R108	1-249-441-11	CARBON	100K	5%	1/4W	
R109	1-249-437-11	CARBON	47K	5%	1/4W	
R110	1-249-441-11	CARBON	100K	5%	1/4W	
R111	1-249-437-11	CARBON	47K	5%	1/4W	
R116	1-214-787-00	METAL	270K	1%	1/4W	
R117	1-247-725-11	CARBON	10K	5%	1/4W	F
R118	1-202-726-00	SOLID	3.9M	20%	1/2W	
R121	1-215-475-00	METAL	180K	1%	1/4W	
R122	1-215-475-00	METAL	180K	1%	1/4W	
R124	1-249-425-11	CARBON	4.7K	5%	1/4W	
R125	1-247-807-31	CARBON	100	5%	1/4W	
R126	1-249-429-11	CARBON	10K	5%	1/4W	
R127	1-247-807-31	CARBON	100	5%	1/4W	
R128	1-247-807-31	CARBON	100	5%	1/4W	
⊠R131 ⚠	[illegible]	METAL	[illegible]	[illegible]	1/4W	
⊠R132 ⚠	[illegible]	METAL	[illegible]	[illegible]	1/4W	
R133	1-215-905-11	METAL OXIDE	10	5%	3W	F
R134	1-215-905-11	METAL OXIDE	10	5%	3W	F
R135	1-215-905-11	METAL OXIDE	10	5%	3W	F
R136	1-202-726-00	SOLID	3.9M	20%	1/2W	
R137	1-249-401-11	CARBON	47	5%	1/4W	F
R138	1-249-417-11	CARBON	1K	5%	1/4W	
R139	1-247-807-31	CARBON	100	5%	1/4W	
R140	1-247-807-31	CARBON	100	5%	1/4W	
R141	1-247-807-31	CARBON	100	5%	1/4W	
R142	1-249-417-11	CARBON	1K	5%	1/4W	
R143	1-215-432-00	METAL	3K	1%	1/4W	
R144	1-215-432-00	METAL	3K	1%	1/4W	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION
T1	1-437-144-11	TRANSFORMER, FERRITE (HDT)

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION
X1	1-578-768-11	VIBLATOR, CERAMIC

****

*A-1240-970-A F BOARD, COMPLETE
****

*1-634-040-11 PC BOARD, F

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C040	1-124-607-11	ELECT	2200MF	20%	50V
C041	1-124-607-11	ELECT	2200MF	20%	50V
C042	1-124-607-11	ELECT	2200MF	20%	50V
C043	1-124-607-11	ELECT	2200MF	20%	50V
C044	1-124-607-11	ELECT	2200MF	20%	50V
C045	1-124-607-11	ELECT	2200MF	20%	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
F-1	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P
F-2	*1-564-509-11	PLUG, CONNECTOR 6P
F-3	*1-564-509-11	PLUG, CONNECTOR 6P
F-4	*1-564-507-11	PLUG, CONNECTOR 4P

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			
R070	1-205-742-11	WIREWOUND	4.7	5%	7W
R071	1-205-742-11	WIREWOUND	4.7	5%	7W
R072	1-205-742-11	WIREWOUND	4.7	5%	7W
R073	1-205-742-11	WIREWOUND	4.7	5%	7W

****

*A-1270-304-A QM BOARD, COMPLETE
****

<JACK>

REF.NO.	PART NO.	DESCRIPTION
J7	*1-526-575-00	SOCKET, PLUG 1P
J8	*1-526-575-00	SOCKET, PLUG 1P
J9	*1-526-575-00	SOCKET, PLUG 1P

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
QM-1	*1-568-985-11	CONNECTOR, FEMALE 64P
QM-2	*1-564-515-11	PLUG, CONNECTOR 12P
QM-3	*1-564-509-11	PLUG, CONNECTOR 6P
QM-4	*1-564-508-11	PLUG, CONNECTOR 5P

****

*1-631-359-11 RC BOARD
****
(INCLUDING RCA,RCB,RCC,RCD BOARD)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C1	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C2	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C3	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C4	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C5	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C6	1-126-967-11	ELECT	47MF	20%	6.3V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D1	8-719-901-44	DIODE SLP144B
D4	8-719-801-48	DIODE 1SS193
D6	8-719-105-51	DIODE RD3.6M-B1

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC1	8-759-634-91	IC M50461-157SP

<COIL>

REF.NO.	PART NO.	DESCRIPTION
L1	1-408-789-21	INDUCTOR CHIP 100UH

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q1	8-729-216-22	TRANSISTOR 2SA1162-G
Q2	8-729-230-49	TRANSISTOR 2SC2712-YG
Q5	8-729-230-49	TRANSISTOR 2SC2712-YG
Q6	8-729-216-22	TRANSISTOR 2SA1162-G
Q7	8-729-230-49	TRANSISTOR 2SC2712-YG
Q8	8-729-101-07	TRANSISTOR 2SB798-DL
Q9	8-729-230-49	TRANSISTOR 2SC2712-YG

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			
R1	1-216-017-00	METAL GLAZE	47	5%	1/10W
R2	1-216-041-00	METAL GLAZE	470	5%	1/10W
R3	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R4	1-216-073-00	METAL GLAZE	10K	5%	1/10W

- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION	REMARK
R5	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R6	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R10	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R11	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R12	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R13	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R14	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R15	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R16	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R17	1-216-028-00	METAL GLAZE 130 5% 1/10W	
R18	1-216-028-00	METAL GLAZE 130 5% 1/10W	
R19	1-216-028-00	METAL GLAZE 130 5% 1/10W	
R20	1-216-028-00	METAL GLAZE 130 5% 1/10W	
R21	1-216-028-00	METAL GLAZE 130 5% 1/10W	
R22	1-216-028-00	METAL GLAZE 130 5% 1/10W	
R23	1-216-028-00	METAL GLAZE 130 5% 1/10W	
R24	1-216-028-00	METAL GLAZE 130 5% 1/10W	
R25	1-216-028-00	METAL GLAZE 130 5% 1/10W	
R26	1-216-028-00	METAL GLAZE 130 5% 1/10W	
R27	1-216-028-00	METAL GLAZE 130 5% 1/10W	
R28	1-216-028-00	METAL GLAZE 130 5% 1/10W	
R29	1-216-028-00	METAL GLAZE 130 5% 1/10W	
R30	1-216-028-00	METAL GLAZE 130 5% 1/10W	
		<CONNECTOR>	
RC-1	*1-564-519-11	PLUG, CONNECTOR 4P	
		<SWITCH>	
S1	1-553-856-00	SWITCH, KEY BOARD	
		<CRYSTAL>	
X1	1-527-476-00	OSCILLATOR, CERAMIC	
**			
	*1-631-356-11	RCA BOARD *********	
		<DIODE>	
D5	8-719-938-67	DIODE GL3EG8	
D6	8-719-938-67	DIODE GL3EG8	
D7	8-719-938-67	DIODE GL3EG8	
D8	8-719-938-67	DIODE GL3EG8	
D9	8-719-938-67	DIODE GL3EG8	
**			
	*1-631-357-11	RCB BOARD *********	
		<DIODE>	
D10	8-719-938-67	DIODE GL3EG8	
D11	8-719-938-67	DIODE GL3EG8	
D12	8-719-938-67	DIODE GL3EG8	
D13	8-719-938-67	DIODE GL3EG8	
D14	8-719-938-67	DIODE GL3EG8	
**			
	*1-631-358-11	RCC BOARD *********	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<DIODE>	
D15	8-719-938-67	DIODE GL3EG8	
D16	8-719-938-67	DIODE GL3EG8	
**			
	*1-631-493-11	RCD BOARD *********	
		<DIODE>	
D1	8-719-938-67	DIODE GL3EG8	
**			
	*A-1331-162-A	CFB BOARD, COMPLETE *******************	
		<CAPACITOR>	
C201	1-101-821-00	CERAMIC 0.0022MF	500V
C202	1-101-821-00	CERAMIC 0.0022MF	500V
C203	1-101-821-00	CERAMIC 0.0022MF	500V
C204	1-101-821-00	CERAMIC 0.0022MF	500V
C205	1-101-821-00	CERAMIC 0.0022MF	500V
		<CONNECTOR>	
CFB-1	*1-564-528-11	PLUG, CONNECTOR 13P	
CFB-2	*1-564-514-11	PLUG, CONNECTOR 11P	
CFB-3	1-564-505-11	PLUG, CONNECTOR 2P	
CFB-4	*1-564-519-11	PLUG, CONNECTOR 4P	
CFB-5	*1-564-507-11	PLUG, CONNECTOR 4P	
		<FILTER>	
FL201	1-236-071-11	ENCAPSULATED COMPONENT	
FL202	1-236-164-11	ENCAPSULATED COMPONENT	
FL203	1-236-071-11	ENCAPSULATED COMPONENT	
FL204	1-236-071-11	ENCAPSULATED COMPONENT	
FL205	1-236-071-11	ENCAPSULATED COMPONENT	
FL206	1-236-071-11	ENCAPSULATED COMPONENT	
FL207	1-236-164-11	ENCAPSULATED COMPONENT	
FL208	1-236-164-11	ENCAPSULATED COMPONENT	
FL209	1-236-164-11	ENCAPSULATED COMPONENT	
FL210	1-236-164-11	ENCAPSULATED COMPONENT	
**			
	*A-1331-163-A	CFA BOARD, COMPLETE *******************	
		<CONNECTOR>	
CFA-1	*1-575-136-11	CONNECTOR ASSY, FLAT CABLE	
CFA-2	*1-575-136-11	CONNECTOR ASSY, FLAT CABLE	
		<FILTER>	
FL1	1-236-164-11	ENCAPSULATED COMPONENT	
FL2	1-236-164-11	ENCAPSULATED COMPONENT	
FL3	1-236-164-11	ENCAPSULATED COMPONENT	
FL4	1-236-101-11	ENCAPSULATED COMPONENT	
FL5	1-236-164-11	ENCAPSULATED COMPONENT	
FL6	1-236-101-11	ENCAPSULATED COMPONENT	
FL7	1-236-164-11	ENCAPSULATED COMPONENT	

CFA **CBR** **CBG** **CBB**

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
FL8	1-236-101-11	ENCAPSULATED COMPONENT	
FL9	1-236-164-11	ENCAPSULATED COMPONENT	
FL10	1-236-164-11	ENCAPSULATED COMPONENT	
FL11	1-236-164-11	ENCAPSULATED COMPONENT	
FL12	1-236-164-11	ENCAPSULATED COMPONENT	
FL13	1-236-164-11	ENCAPSULATED COMPONENT	
FL14	1-236-164-11	ENCAPSULATED COMPONENT	
FL15	1-236-164-11	ENCAPSULATED COMPONENT	
FL16	1-236-164-11	ENCAPSULATED COMPONENT	
FL17	1-236-164-11	ENCAPSULATED COMPONENT	
FL18	1-236-164-11	ENCAPSULATED COMPONENT	
FL19	1-236-164-11	ENCAPSULATED COMPONENT	
FL20	1-236-164-11	ENCAPSULATED COMPONENT	
FL21	1-236-164-11	ENCAPSULATED COMPONENT	
FL22	1-236-101-11	ENCAPSULATED COMPONENT	
FL23	1-236-101-11	ENCAPSULATED COMPONENT	
FL24	1-236-164-11	ENCAPSULATED COMPONENT	

****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1331-324-A	CBR BOARD, COMPLETE *******************	
	⚠1-526-812-12	SOCKET, PITURE TUBE	
	1-575-098-11	LEAD ASSY, SIELD HIGH VOLTAGE	
		<CAPACITOR>	
C301	1-162-114-00	CERAMIC 0.0047MF	2KV
		<CONNECTOR>	
CN251	*1-564-507-11	PLUG, CONNECTOR 4P	
CN252	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN253	*1-564-507-11	PLUG, CONNECTOR 4P	
CN254	*1-506-371-00	PIN, CONNECTOR 2P	
CN255	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN256	*1-564-507-11	PLUG, CONNECTOR 4P	
		<COIL>	
L303	1-408-763-00	INDUCTOR 0.82UH	
		<NEON LAMP>	
NL301	1-519-423-11	LAMP, NEON	
NL302	1-519-423-11	LAMP, NEON	
NL303	1-519-368-21	LAMP, NEON	
NL304	1-519-368-21	LAMP, NEON	
NL305	1-519-423-11	LAMP, NEON	
		<RESISTOR>	
R301	1-202-818-00	SOLID 1K 20% 1/2W	
R302	1-202-818-00	SOLID 1K 20% 1/2W	
R306	1-202-838-00	SOLID 100K 20% 1/2W	
R307	1-202-535-00	SOLID 27 20% 1/2W	
R308	1-202-525-00	SOLID 10 20% 1/2W	
R309	1-202-832-00	SOLID 15K 20% 1/2W	
		<SPARK GAP>	
SG301	1-519-063-99	DISCHARGING GAP	

****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1331-325-A	CBG BOARD, COMPLETE *******************	
	⚠1-526-812-12	SOCKET, PITURE TUBE	
	1-575-097-11	LEAD ASSY, SIELD HIGH VOLTAGE	
		<CAPACITOR>	
C401	1-162-114-00	CERAMIC 0.0047MF	2KV
		<CONNECTOR>	
CN261	*1-564-507-11	PLUG, CONNECTOR 4P	
CN262	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN263	*1-564-507-11	PLUG, CONNECTOR 4P	
CN264	*1-506-371-00	PIN, CONNECTOR 2P	
CN265	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN266	*1-564-507-11	PLUG, CONNECTOR 4P	
		<COIL>	
L403	1-408-763-00	INDUCTOR 0.82UH	
		<NEON LAMP>	
NL401	1-519-423-11	LAMP, NEON	
NL402	1-519-423-11	LAMP, NEON	
NL403	1-519-368-21	LAMP, NEON	
NL404	1-519-368-21	LAMP, NEON	
NL405	1-519-423-11	LAMP, NEON	
		<RESISTOR>	
R401	1-202-818-00	SOLID 1K 20% 1/2W	
R402	1-202-818-00	SOLID 1K 20% 1/2W	
R406	1-202-838-00	SOLID 100K 20% 1/2W	
R407	1-202-535-00	SOLID 27 20% 1/2W	
R408	1-202-525-00	SOLID 10 20% 1/2W	
R409	1-202-832-00	SOLID 15K 20% 1/2W	
		<SPARK GAP>	
SG401	1-519-063-99	DISCHARGING GAP	

****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1331-326-A	CBB BOARD, COMPLETE *******************	
	⚠1-526-812-12	SOCKET, PITURE TUBE	
	1-575-096-11	LEAD ASSY, SIELD HIGH VOLTAGE	
		<CAPACITOR>	
C501	1-162-114-00	CERAMIC 0.0047MF	2KV
		<CONNECTOR>	
CN271	*1-564-507-11	PLUG, CONNECTOR 4P	
CN272	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN273	*1-564-507-11	PLUG, CONNECTOR 4P	
CN274	*1-506-371-00	PIN, CONNECTOR 2P	
CN275	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN276	*1-564-507-11	PLUG, CONNECTOR 4P	

<COIL>

REF.NO.	PART NO.	DESCRIPTION			REMARK
L503	1-408-763-00	INDUCTOR	0.82UH		

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION			REMARK
NL501	1-519-423-11	LAMP, NEON			
NL502	1-519-423-11	LAMP, NEON			
NL503	1-519-368-21	LAMP, NEON			
NL504	1-519-368-21	LAMP, NEON			
NL505	1-519-423-11	LAMP, NEON			

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R501	1-202-818-00	SOLID	1K	20%	1/2W	
R502	1-202-818-00	SOLID	1K	20%	1/2W	
R506	1-202-838-00	SOLID	100K	20%	1/2W	
R507	1-202-535-00	SOLID	27	20%	1/2W	
R508	1-202-525-00	SOLID	10	20%	1/2W	
R509	1-202-832-00	SOLID	15K	20%	1/2W	

<SPARK GAP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
SG501	1-519-063-99	DISCHARGING GAP	

****

*A-1335-026-A CA (RG) BOARD, COMPLETE
****

4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1	1-124-907-11	ELECT	10MF	20%	50V
C2	1-126-101-11	ELECT	100MF	20%	16V
C3	1-124-907-11	ELECT	10MF	20%	50V
C4	1-126-101-11	ELECT	100MF	20%	16V
C5	1-124-916-11	ELECT	22MF	20%	50V
C6	1-126-101-11	ELECT	100MF	20%	16V
C7	1-124-916-11	ELECT	22MF	20%	50V
C8	1-102-820-00	CERAMIC	330PF	5%	50V
C9	1-101-880-00	CERAMIC	47PF	5%	50V
C10	1-101-004-00	CERAMIC	0.01MF		50V
C11	1-101-004-00	CERAMIC	0.01MF		50V
C12	1-101-004-00	CERAMIC	0.01MF		50V
C13	1-101-004-00	CERAMIC	0.01MF		50V
C14	1-124-916-11	ELECT	22MF	20%	50V
C16	1-124-916-11	ELECT	22MF	20%	50V
C17	1-136-165-00	FILM	0.1MF	5%	50V
C18	1-136-165-00	FILM	0.1MF	5%	50V
C19	1-136-165-00	FILM	0.1MF	5%	50V
C20	1-136-165-00	FILM	0.1MF	5%	50V
C21	1-124-916-11	ELECT	22MF	20%	50V
C22	1-126-103-11	ELECT	470MF	20%	16V
C23	1-136-171-00	FILM	0.33MF	5%	50V
C24	1-102-038-00	CERAMIC	0.001MF		500V
C25	1-124-907-11	ELECT	10MF	20%	50V
C26	1-126-101-11	ELECT	100MF	20%	16V
C101	1-124-282-00	ELECT	22MF	20%	16V
C102	1-124-477-11	ELECT	47MF	20%	16V
C103	1-126-101-11	ELECT	100MF	20%	16V
C104	1-126-101-11	ELECT	100MF	20%	16V
C105	1-124-916-11	ELECT	22MF	20%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C106	1-102-973-00	CERAMIC	100PF	5%	50V
C107	1-101-361-00	CERAMIC	150PF	5%	50V
C110	1-124-798-11	ELECT	1MF	20%	160V
C111	1-124-916-11	ELECT	22MF	20%	50V
C112	1-136-165-00	FILM	0.1MF	5%	50V
C113	1-136-165-00	FILM	0.1MF	5%	50V
C114	1-126-174-51	ELECT	10MF	20%	350V
C115	1-102-038-00	CERAMIC	0.001MF		500V
C116	1-102-050-00	CERAMIC	0.01MF		500V
C117	1-124-768-11	ELECT	4.7MF	20%	50V
C118	1-101-004-00	CERAMIC	0.01MF		50V
C119	1-136-165-00	FILM	0.1MF	5%	50V
C120	1-124-903-11	ELECT	1MF	20%	50V
C121	1-124-916-11	ELECT	22MF	20%	50V
C122	1-124-916-11	ELECT	22MF	20%	50V
C123	1-102-050-00	CERAMIC	0.01MF		500V
C125	1-124-916-11	ELECT	22MF	20%	50V
C126	1-101-004-00	CERAMIC	0.01MF		50V
C127	1-101-004-00	CERAMIC	0.01MF		50V
C201	1-124-282-00	ELECT	22MF	20%	16V
C202	1-124-916-11	ELECT	22MF	20%	50V
C203	1-126-101-11	ELECT	100MF	20%	16V
C204	1-126-101-11	ELECT	100MF	20%	16V
C205	1-124-916-11	ELECT	22MF	20%	50V
C206	1-102-973-00	CERAMIC	100PF	5%	50V
C207	1-101-361-00	CERAMIC	150PF	5%	50V
C210	1-124-798-11	ELECT	1MF	20%	160V
C211	1-124-916-11	ELECT	22MF	20%	50V
C212	1-136-165-00	FILM	0.1MF	5%	50V
C213	1-136-165-00	FILM	0.1MF	5%	50V
C214	1-126-174-51	ELECT	10MF	20%	350V
C215	1-102-038-00	CERAMIC	0.001MF		500V
C216	1-102-050-00	CERAMIC	0.01MF		500V
C217	1-124-768-11	ELECT	4.7MF	20%	50V
C218	1-101-004-00	CERAMIC	0.01MF		50V
C219	1-136-165-00	FILM	0.1MF	5%	50V
C220	1-124-903-11	ELECT	1MF	20%	50V
C221	1-124-916-11	ELECT	22MF	20%	50V
C222	1-124-916-11	ELECT	22MF	20%	50V
C223	1-102-050-00	CERAMIC	0.01MF		500V
C225	1-124-916-11	ELECT	22MF	20%	50V
C226	1-101-004-00	CERAMIC	0.01MF		50V
C227	1-101-004-00	CERAMIC	0.01MF		50V

<SOCKET>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CAGJ1	*1-526-575-00	SOCKET, PLUG 1P	
CARJ1	*1-526-575-00	SOCKET, PLUG 1P	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CAG-1	*1-564-507-11	PLUG, CONNECTOR 4P	
CAG-2	*1-564-507-11	PLUG, CONNECTOR 4P	
CAG-3	*1-564-507-11	PLUG, CONNECTOR 4P	
CAG-4	*1-564-515-11	PLUG, CONNECTOR 12P	
CAG-5	*1-564-516-11	PLUG, CONNECTOR 13P	
CAG-6	*1-564-514-11	PLUG, CONNECTOR 11P	
CAR-1	*1-564-507-11	PLUG, CONNECTOR 4P	
CAR-2	*1-564-507-11	PLUG, CONNECTOR 4P	
CAR-3	*1-564-507-11	PLUG, CONNECTOR 4P	
CAR-4	*1-568-979-11	CONNECTOR 30P	

<DIODE>

CA(RG)

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1	8-719-900-95	DIODE V09G	
D2	8-719-900-95	DIODE V09G	
D3	8-719-109-85	DIODE RD5.1ESB2	
D4	8-719-911-19	DIODE 1SS119	
D7	8-719-911-19	DIODE 1SS119	
D8	8-719-911-19	DIODE 1SS119	
D9	8-719-109-97	DIODE RD6.8ESB2	
D12	8-719-911-19	DIODE 1SS119	
D13	8-719-109-85	DIODE RD5.1ESB2	
D14	8-719-109-97	DIODE RD6.8ESB2	
D15	8-719-911-19	DIODE 1SS119	
D101	8-719-901-83	DIODE 1SS83	
D102	8-719-901-83	DIODE 1SS83	
D103	8-719-911-19	DIODE 1SS119	
D104	8-719-911-19	DIODE 1SS119	
D105	8-719-901-83	DIODE 1SS83	
D106	8-719-911-19	DIODE 1SS119	
D107	8-719-911-19	DIODE 1SS119	
D109	8-719-911-19	DIODE 1SS119	
D110	8-719-109-51	DIODE RD2.0ESB2	
D111	8-719-911-19	DIODE 1SS119	
D112	8-719-911-19	DIODE 1SS119	
D113	8-719-911-19	DIODE 1SS119	
D114	8-719-110-36	DIODE RD13ESB2	
D115	8-719-911-19	DIODE 1SS119	
D117	8-719-911-19	DIODE 1SS119	
D118	8-719-911-19	DIODE 1SS119	
D120	8-719-911-19	DIODE 1SS119	
D121	8-719-911-19	DIODE 1SS119	
D122	8-719-911-19	DIODE 1SS119	
D201	8-719-901-83	DIODE 1SS83	
D202	8-719-901-83	DIODE 1SS83	
D203	8-719-911-19	DIODE 1SS119	
D204	8-719-911-19	DIODE 1SS119	
D205	8-719-901-83	DIODE 1SS83	
D206	8-719-911-19	DIODE 1SS119	
D207	8-719-911-19	DIODE 1SS119	
D209	8-719-911-19	DIODE 1SS119	
D210	8-719-109-51	DIODE RD2.0ESB2	
D211	8-719-911-19	DIODE 1SS119	
D212	8-719-911-19	DIODE 1SS119	
D213	8-719-911-19	DIODE 1SS119	
D214	8-719-110-36	DIODE RD13ESB2	
D217	8-719-911-19	DIODE 1SS119	
D218	8-719-911-19	DIODE 1SS119	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1	8-759-929-65	IC LM7912CT	
IC2	8-759-701-79	IC NJM7812FA	
IC3	8-759-708-05	IC NJM78L05A	
IC4	8-759-038-14	IC MC74HC4538AN	
IC5	8-759-984-55	IC MB675429	
IC6	8-759-916-71	IC SN74HC244AN	
IC7	8-759-916-12	IC SN74HC00AN	
IC8	8-759-503-91	IC TL082ACP	
IC101	8-749-923-01	IC VPH06	
IC102	8-759-503-91	IC TL082ACP	
IC104	8-749-923-15	IC TY885002A	
IC201	8-749-923-01	IC VPH06	
IC202	8-759-503-91	IC TL082ACP	
IC204	8-749-923-15	IC TY885002A	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L101	1-408-879-21	INDUCTOR 0.47UH	
L201	1-408-879-21	INDUCTOR 0.47UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q2	8-729-900-89	TRANSISTOR DTC144ES	
Q3	8-729-900-89	TRANSISTOR DTC144ES	
Q4	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q5	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q9	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q10	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q11	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q12	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q14	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q15	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q16	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q17	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q18	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q19	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q101	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q102	8-729-140-96	TRANSISTOR 2SD774-34	
Q103	8-729-801-88	TRANSISTOR 2SA1381-E	
Q104	8-729-801-88	TRANSISTOR 2SA1381-E	
Q105	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q106	8-729-140-96	TRANSISTOR 2SD774-34	
Q107	8-729-801-88	TRANSISTOR 2SA1381-E	
Q108	8-729-900-65	TRANSISTOR DTA144ES	
Q109	8-729-900-65	TRANSISTOR DTA144ES	
Q110	8-729-900-89	TRANSISTOR DTC144ES	
Q111	8-729-105-74	TRANSISTOR 2SK523-M1	
Q112	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q115	8-729-801-88	TRANSISTOR 2SA1381-E	
Q201	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q202	8-729-140-96	TRANSISTOR 2SD774-34	
Q203	8-729-801-88	TRANSISTOR 2SA1381-E	
Q204	8-729-801-88	TRANSISTOR 2SA1381-E	
Q205	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q206	8-729-140-96	TRANSISTOR 2SD774-34	
Q207	8-729-801-88	TRANSISTOR 2SA1381-E	
Q208	8-729-900-65	TRANSISTOR DTA144ES	
Q209	8-729-900-65	TRANSISTOR DTA144ES	
Q210	8-729-900-89	TRANSISTOR DTC144ES	
Q211	8-729-105-74	TRANSISTOR 2SK523-M1	
Q212	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q215	8-729-801-88	TRANSISTOR 2SA1381-E	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1	1-247-807-31	CARBON	100	5%	1/4W	
R2	1-215-437-00	METAL	4.7K	1%	1/4W	
R3	1-249-441-11	CARBON	100K	5%	1/4W	
R4	1-215-449-00	METAL	15K	1%	1/4W	
R5	1-247-807-31	CARBON	100	5%	1/4W	
R6	1-249-438-11	CARBON	56K	5%	1/4W	
R7	1-249-437-11	CARBON	47K	5%	1/4W	
R8	1-247-807-31	CARBON	100	5%	1/4W	
R9	1-215-449-00	METAL	15K	1%	1/4W	
R10	1-215-447-00	METAL	12K	1%	1/4W	
R11	1-247-807-31	CARBON	100	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R12	1-247-807-31	CARBON	100	5%	1/4W	
R14	1-249-427-11	CARBON	6.8K	5%	1/4W	
R15	1-249-429-11	CARBON	10K	5%	1/4W	
R16	1-247-807-31	CARBON	100	5%	1/4W	
R17	1-249-423-11	CARBON	3.3K	5%	1/4W	
R18	1-249-426-11	CARBON	5.6K	5%	1/4W	
R19	1-215-413-00	METAL	470	1%	1/4W	
R20	1-215-455-00	METAL	27K	1%	1/4W	
R22	1-215-443-00	METAL	8.2K	1%	1/4W	
R23	1-215-447-00	METAL	12K	1%	1/4W	
R24	1-215-453-00	METAL	22K	1%	1/4W	
R25	1-215-457-00	METAL	33K	1%	1/4W	
R26	1-247-807-31	CARBON	100	5%	1/4W	
R27	1-247-807-31	CARBON	100	5%	1/4W	
R28	1-215-431-00	METAL	2.7K	1%	1/4W	
R29	1-249-429-11	CARBON	10K	5%	1/4W	
R30	1-215-469-00	METAL	100K	1%	1/4W	
R31	1-249-429-11	CARBON	10K	5%	1/4W	
R32	1-215-443-00	METAL	8.2K	1%	1/4W	
R33	1-215-443-00	METAL	8.2K	1%	1/4W	
R34	1-215-443-00	METAL	8.2K	1%	1/4W	
R35	1-247-887-00	CARBON	220K	5%	1/4W	
R36	1-247-887-00	CARBON	220K	5%	1/4W	
R37	1-247-887-00	CARBON	220K	5%	1/4W	
R38	1-249-441-11	CARBON	100K	5%	1/4W	
R39	1-215-469-00	METAL	100K	1%	1/4W	
R40	1-249-433-11	CARBON	22K	5%	1/4W	
R41	1-215-473-00	METAL	150K	1%	1/4W	
R42	1-249-433-11	CARBON	22K	5%	1/4W	
R43	1-247-807-31	CARBON	100	5%	1/4W	
R44	1-249-429-11	CARBON	10K	5%	1/4W	
R45	1-249-429-11	CARBON	10K	5%	1/4W	
R46	1-247-887-00	CARBON	220K	5%	1/4W	
R47	1-249-413-11	CARBON	470	5%	1/4W	
R48	1-249-439-11	CARBON	68K	5%	1/4W	
R101	1-215-401-11	METAL	150	1%	1/4W	
R102	1-215-401-11	METAL	150	1%	1/4W	
R103	1-215-473-00	METAL	150K	1%	1/4W	
R105	1-215-469-00	METAL	100K	1%	1/4W	
R106	1-215-465-00	METAL	68K	1%	1/4W	
R107	1-249-421-11	CARBON	2.2K	5%	1/4W	
R108	1-249-403-11	CARBON	68	5%	1/4W	F
R109	1-215-429-00	METAL	2.2K	1%	1/4W	
R110	1-249-413-11	CARBON	470	5%	1/4W	F
R111	1-249-421-11	CARBON	2.2K	5%	1/4W	
R112	1-215-377-00	METAL	15	1%	1/4W	
R113	1-249-412-11	CARBON	390	5%	1/4W	F
R117	1-249-421-11	CARBON	2.2K	5%	1/4W	
R118	1-215-447-00	METAL	12K	1%	1/4W	
R119	1-215-433-00	METAL	3.3K	1%	1/4W	
R120	1-215-433-00	METAL	3.3K	1%	1/4W	
R122	1-215-441-00	METAL	6.8K	1%	1/4W	
R123	1-215-481-00	METAL	330K	1%	1/4W	
R124	1-215-433-00	METAL	3.3K	1%	1/4W	
R125	1-249-431-11	CARBON	15K	5%	1/4W	
R126	1-249-431-11	CARBON	15K	5%	1/4W	
R127	1-249-415-11	CARBON	680	5%	1/4W	
R128	1-247-807-31	CARBON	100	5%	1/4W	
R129	1-249-414-11	CARBON	560	5%	1/4W	F
R130	1-215-431-00	METAL	2.7K	1%	1/4W	
R131	1-202-549-00	SOLID	100	10%	1/2W	
R132	1-202-549-00	SOLID	100	10%	1/2W	
R133	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R134	1-249-429-11	CARBON	10K	5%	1/4W	
R135	1-215-469-00	METAL	100K	1%	1/4W	
R136	1-214-777-00	METAL	100K	1%	1/4W	
R137	1-215-445-00	METAL	10K	1%	1/4W	
R138	1-215-451-00	METAL	18K	1%	1/4W	
R139	1-249-421-11	CARBON	2.2K	5%	1/4W	
R140	1-215-453-00	METAL	22K	1%	1/4W	
R141	1-215-421-00	METAL	1K	1%	1/4W	
R142	1-249-417-11	CARBON	1K	5%	1/4W	
R143	1-247-903-00	CARBON	1M	5%	1/4W	
R144	1-249-427-11	CARBON	6.8K	5%	1/4W	
R145	1-247-807-31	CARBON	100	5%	1/4W	
R147	1-215-457-00	METAL	33K	1%	1/4W	
R148	1-249-410-11	CARBON	270	5%	1/4W	F
R149	1-247-807-31	CARBON	100	5%	1/4W	
R150	1-247-807-31	CARBON	100	5%	1/4W	
R160	1-249-423-11	CARBON	3.3K	5%	1/4W	
R170	1-247-735-11	SOLID	47	10%	1/2W	
R201	1-215-401-11	METAL	150	1%	1/4W	
R202	1-215-401-11	METAL	150	1%	1/4W	
R203	1-215-461-00	METAL	47K	1%	1/4W	
R204	1-215-469-00	METAL	100K	1%	1/4W	
R205	1-215-469-00	METAL	100K	1%	1/4W	
R206	1-215-471-00	METAL	120K	1%	1/4W	
R207	1-249-421-11	CARBON	2.2K	5%	1/4W	
R208	1-249-403-11	CARBON	68	5%	1/4W	F
R209	1-215-429-00	METAL	2.2K	1%	1/4W	
R210	1-249-410-11	CARBON	270	5%	1/4W	F
R211	1-249-421-11	CARBON	2.2K	5%	1/4W	
R212	1-215-377-00	METAL	15	1%	1/4W	
R213	1-249-409-11	CARBON	220	5%	1/4W	F
R217	1-249-421-11	CARBON	2.2K	5%	1/4W	
R218	1-215-447-00	METAL	12K	1%	1/4W	
R219	1-215-433-00	METAL	3.3K	1%	1/4W	
R220	1-215-433-00	METAL	3.3K	1%	1/4W	
R222	1-215-441-00	METAL	6.8K	1%	1/4W	
R223	1-215-481-00	METAL	330K	1%	1/4W	
R224	1-215-433-00	METAL	3.3K	1%	1/4W	
R225	1-249-431-11	CARBON	15K	5%	1/4W	
R226	1-249-431-11	CARBON	15K	5%	1/4W	
R227	1-249-415-11	CARBON	680	5%	1/4W	
R228	1-247-807-31	CARBON	100	5%	1/4W	
R229	1-249-414-11	CARBON	560	5%	1/4W	F
R230	1-215-431-00	METAL	2.7K	1%	1/4W	
R231	1-202-549-00	SOLID	100	10%	1/2W	
R232	1-202-549-00	SOLID	100	10%	1/2W	
R233	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R234	1-215-469-00	METAL	100K	1%	1/4W	
R235	1-249-429-11	CARBON	10K	5%	1/4W	
R236	1-214-777-00	METAL	100K	1%	1/4W	
R237	1-215-445-00	METAL	10K	1%	1/4W	
R238	1-215-451-00	METAL	18K	1%	1/4W	
R239	1-249-421-11	CARBON	2.2K	5%	1/4W	
R240	1-215-453-00	METAL	22K	1%	1/4W	
R241	1-215-421-00	METAL	1K	1%	1/4W	
R242	1-249-417-11	CARBON	1K	5%	1/4W	
R243	1-247-903-00	CARBON	1M	5%	1/4W	
R244	1-249-427-11	CARBON	6.8K	5%	1/4W	
R245	1-247-807-31	CARBON	100	5%	1/4W	
R247	1-247-807-31	CARBON	100	5%	1/4W	
R248	1-247-807-31	CARBON	100	5%	1/4W	
R260	1-249-423-11	CARBON	3.3K	5%	1/4W	
R270	1-247-735-11	SOLID	47	10%	1/2W	

CA(B)

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*A-1335-027-A CA (B) BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C30	1-126-101-11	ELECT	100MF	20%	16V
C31	1-126-101-11	ELECT	100MF	20%	16V
C32	1-124-916-11	ELECT	22MF	20%	50V
C33	1-124-916-11	ELECT	22MF	20%	50V
C34	1-101-004-00	CERAMIC	0.01MF		50V
C35	1-124-903-11	ELECT	1MF	20%	50V
C36	1-124-903-11	ELECT	1MF	20%	50V
C37	1-124-916-11	ELECT	22MF	20%	50V
C38	1-101-004-00	CERAMIC	0.01MF		50V
C42	1-162-117-00	CERAMIC	100PF	10%	500V
C43	1-101-004-00	CERAMIC	0.01MF		50V
C44	1-124-798-11	ELECT	1MF	20%	160V
C45	1-101-004-00	CERAMIC	0.01MF		50V
C46	1-124-916-11	ELECT	22MF	20%	50V
C47	1-126-134-11	ELECT	4.7MF	20%	350V
C48	1-123-932-00	ELECT	4.7MF	20%	160V
C50	1-124-798-11	ELECT	1MF	20%	160V
C51	1-102-050-00	CERAMIC	0.01MF		500V
C52	1-102-050-00	CERAMIC	0.01MF		500V
C54	1-124-798-11	ELECT	1MF	20%	160V
C55	1-124-916-11	ELECT	22MF	20%	50V
C56	1-124-903-11	ELECT	1MF	20%	50V
C57	1-124-903-11	ELECT	1MF	20%	50V
C58	1-101-004-00	CERAMIC	0.01MF		50V
C301	1-124-282-00	ELECT	22MF	20%	16V
C302	1-124-910-11	ELECT	47MF	20%	50V
C303	1-126-101-11	ELECT	100MF	20%	16V
C304	1-126-101-11	ELECT	100MF	20%	16V
C305	1-124-916-11	ELECT	22MF	20%	50V
C306	1-102-973-00	CERAMIC	100PF	5%	50V
C307	1-101-361-00	CERAMIC	150PF	5%	50V
C310	1-124-798-11	ELECT	1MF	20%	160V
C311	1-124-916-11	ELECT	22MF	20%	50V
C312	1-136-165-00	FILM	0.1MF	5%	50V
C313	1-136-165-00	FILM	0.1MF	5%	50V
C314	1-126-174-51	ELECT	10MF	20%	350V
C315	1-102-038-00	CERAMIC	0.001MF		500V
C316	1-102-050-00	CERAMIC	0.01MF		500V
C317	1-124-768-11	ELECT	4.7MF	20%	50V
C318	1-101-004-00	CERAMIC	0.01MF		50V
C319	1-136-165-00	FILM	0.1MF	5%	50V
C320	1-124-903-11	ELECT	1MF	20%	50V
C321	1-124-916-11	ELECT	22MF	20%	50V
C322	1-124-916-11	ELECT	22MF	20%	50V
C323	1-102-050-00	CERAMIC	0.01MF		500V
C324	1-102-973-00	CERAMIC	100PF	5%	50V
C325	1-124-916-11	ELECT	22MF	20%	50V
C326	1-101-004-00	CERAMIC	0.01MF		50V
C327	1-101-004-00	CERAMIC	0.01MF		50V
C350	1-126-101-11	ELECT	100MF	20%	16V
C351	1-126-101-11	ELECT	100MF	20%	16V

<SOCKET>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CABJ1	*1-526-575-00	SOCKET, PLUG 1P	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CAB-1	*1-564-507-11	PLUG, CONNECTOR 4P	
CAB-2	*1-564-507-11	PLUG, CONNECTOR 4P	
CAB-3	*1-564-507-11	PLUG, CONNECTOR 4P	
CAB-7	*1-564-516-11	PLUG, CONNECTOR 13P	
CAB-8	*1-564-507-11	PLUG, CONNECTOR 4P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D30	8-719-109-66	DIODE RD3.3ESB2	
D31	8-719-901-83	DIODE 1SS83	
D32	8-719-901-83	DIODE 1SS83	
D33	8-719-110-31	DIODE RD12ESB2	
D34	8-719-110-31	DIODE RD12ESB2	
D35	8-719-900-95	DIODE V09G	
D36	8-719-900-95	DIODE V09G	
D40	8-719-900-95	DIODE V09G	
D41	8-719-911-19	DIODE 1SS119	
D301	8-719-901-83	DIODE 1SS83	
D302	8-719-901-83	DIODE 1SS83	
D303	8-719-911-19	DIODE 1SS119	
D304	8-719-911-19	DIODE 1SS119	
D305	8-719-901-83	DIODE 1SS83	
D306	8-719-911-19	DIODE 1SS119	
D307	8-719-911-19	DIODE 1SS119	
D309	8-719-911-19	DIODE 1SS119	
D310	8-719-109-51	DIODE RD2.0ESB2	
D311	8-719-911-19	DIODE 1SS119	
D312	8-719-911-19	DIODE 1SS119	
D313	8-719-911-19	DIODE 1SS119	
D314	8-719-110-36	DIODE RD13ESB2	
D315	8-719-109-66	DIODE RD3.3ESB2	
D316	8-719-911-19	DIODE 1SS119	
D317	8-719-911-19	DIODE 1SS119	
D318	8-719-911-19	DIODE 1SS119	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC301	8-749-923-01	IC VPH06	
IC302	8-759-503-91	IC TL082ACP	
IC304	8-749-923-15	IC TY885002A	
IC305	8-749-923-25	IC TY911504	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L301	1-408-879-21	INDUCTOR	0.47UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q30	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q31	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q32	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q33	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q34	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q35	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q36	8-729-820-82	TRANSISTOR 2SA1208-S	
Q37	8-729-820-82	TRANSISTOR 2SA1208-S	
Q38	8-729-255-12	TRANSISTOR 2SC2551-O	
Q41	8-729-903-68	TRANSISTOR 2SD982	
Q42	8-729-801-88	TRANSISTOR 2SA1381-E	
Q43	8-729-801-88	TRANSISTOR 2SA1381-E	
Q44	8-729-903-68	TRANSISTOR 2SD982	
Q45	8-729-140-96	TRANSISTOR 2SD774-34	
Q301	8-729-119-76	TRANSISTOR 2SA1175-HFE	

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q302	8-729-140-96	TRANSISTOR 2SD774-34				
Q303	8-729-801-88	TRANSISTOR 2SA1381-E				
Q304	8-729-801-88	TRANSISTOR 2SA1381-E				
Q305	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q306	8-729-140-96	TRANSISTOR 2SD774-34				
Q307	8-729-801-88	TRANSISTOR 2SA1381-E				
Q308	8-729-900-65	TRANSISTOR DTA144ES				
Q309	8-729-900-65	TRANSISTOR DTA144ES				
Q310	8-729-900-89	TRANSISTOR DTC144ES				
Q311	8-729-105-74	TRANSISTOR 2SK523-M1				
Q312	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q313	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q314	8-729-900-89	TRANSISTOR DTC144ES				
Q315	8-729-801-88	TRANSISTOR 2SA1381-E				
		<RESISTOR>				
R50	1-249-421-11	CARBON	2.2K	5%	1/4W	
R51	1-249-424-11	CARBON	3.9K	5%	1/4W	
R52	1-249-393-11	CARBON	10	5%	1/4W	
R53	1-249-424-11	CARBON	3.9K	5%	1/4W	
R54	1-215-437-00	METAL	4.7K	1%	1/4W	
R55	1-215-439-00	METAL	5.6K	1%	1/4W	
R56	1-215-467-00	METAL	82K	1%	1/4W	
R57	1-247-807-31	CARBON	100	5%	1/4W	
R58	1-247-807-31	CARBON	100	5%	1/4W	
R59	1-249-423-11	CARBON	3.3K	5%	1/4W	
R60	1-247-807-31	CARBON	100	5%	1/4W	
R61	1-249-423-11	CARBON	3.3K	5%	1/4W	
R62	1-249-425-11	CARBON	4.7K	5%	1/4W	
R63	1-249-437-11	CARBON	47K	5%	1/4W	
R65	1-249-425-11	CARBON	4.7K	5%	1/4W	
R66	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R67	1-249-397-11	CARBON	22	5%	1/4W	
R68	1-249-397-11	CARBON	22	5%	1/4W	F
R74	1-249-429-11	CARBON	10K	5%	1/4W	F
R75	1-249-429-11	CARBON	10K	5%	1/4W	F
R76	1-202-719-00	SOLID	1M	10%	1/2W	
R77	1-247-903-00	CARBON	1M	5%	1/4W	
R79	1-249-397-11	CARBON	22	5%	1/4W	F
R80	1-249-437-11	CARBON	47K	5%	1/4W	
R81	1-249-441-11	CARBON	100K	5%	1/4W	
R82	1-249-437-11	CARBON	47K	5%	1/4W	
R83	1-249-435-11	CARBON	33K	5%	1/4W	
R84	1-249-476-11	CARBON	1.5	5%	1/2W	F
R85	1-249-433-11	CARBON	22K	5%	1/4W	
R86	1-247-903-00	CARBON	1M	5%	1/4W	
R87	1-249-425-11	CARBON	4.7K	5%	1/4W	
R301	1-215-401-11	METAL	150	1%	1/4W	
R302	1-215-401-11	METAL	150	1%	1/4W	
R303	1-215-461-00	METAL	47K	1%	1/4W	
R304	1-215-469-00	METAL	100K	1%	1/4W	
R305	1-215-469-00	METAL	100K	1%	1/4W	
R306	1-215-473-00	METAL	150K	1%	1/4W	
R307	1-249-421-11	CARBON	2.2K	5%	1/4W	
R308	1-249-403-11	CARBON	68	5%	1/4W	
R309	1-215-429-00	METAL	2.2K	1%	1/4W	
R310	1-247-811-31	CARBON	150	5%	1/4W	F
R311	1-249-421-11	CARBON	2.2K	5%	1/4W	
R312	1-215-377-00	METAL	15	1%	1/4W	
R313	1-247-811-31	CARBON	150	5%	1/4W	F
R317	1-249-421-11	CARBON	2.2K	5%	1/4W	
R318	1-215-447-00	METAL	12K	1%	1/4W	
R319	1-215-433-00	METAL	3.3K	1%	1/4W	
R320	1-215-433-00	METAL	3.3K	1%	1/4W	
R322	1-215-441-00	METAL	6.8K	1%	1/4W	
R323	1-215-481-00	METAL	330K	1%	1/4W	
R324	1-215-433-00	METAL	3.3K	1%	1/4W	
R325	1-249-431-11	CARBON	15K	5%	1/4W	
R326	1-249-431-11	CARBON	15K	5%	1/4W	
R327	1-249-415-11	CARBON	680	5%	1/4W	
R328	1-247-807-31	CARBON	100	5%	1/4W	
R329	1-249-414-11	CARBON	560	5%	1/4W	F
R330	1-215-431-00	METAL	2.7K	1%	1/4W	
R331	1-202-549-00	SOLID	100	10%	1/2W	
R332	1-202-549-00	SOLID	100	10%	1/2W	
R333	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R334	1-215-469-00	METAL	100K	1%	1/4W	
R335	1-249-429-11	CARBON	10K	5%	1/4W	
R336	1-214-777-00	METAL	100K	1%	1/4W	
R337	1-215-445-00	METAL	10K	1%	1/4W	
R338	1-215-451-00	METAL	18K	1%	1/4W	
R339	1-249-421-11	CARBON	2.2K	5%	1/4W	
R340	1-215-453-00	METAL	22K	1%	1/4W	
R341	1-215-421-00	METAL	1K	1%	1/4W	
R342	1-249-417-11	CARBON	1K	5%	1/4W	
R343	1-247-903-00	CARBON	1M	5%	1/4W	
R344	1-249-427-11	CARBON	6.8K	5%	1/4W	
R345	1-247-807-31	CARBON	100	5%	1/4W	
R347	1-247-807-31	CARBON	100	5%	1/4W	
R348	1-247-903-00	CARBON	1M	5%	1/4W	
R349	1-249-423-11	CARBON	3.3K	5%	1/4W	
R350	1-247-807-31	CARBON	100	5%	1/4W	
R351	1-215-447-00	METAL	12K	1%	1/4W	
R352	1-249-421-11	CARBON	2.2K	5%	1/4W	
R353	1-249-403-11	CARBON	68	5%	1/4W	F
R356	1-215-457-00	METAL	33K	1%	1/4W	
R360	1-249-423-11	CARBON	3.3K	5%	1/4W	
R370	1-247-735-11	SOLID	47	10%	1/2W	

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*A-1341-775-A DM BOARD, COMPLETE
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REF.NO.	PART NO.	DESCRIPTION				REMARK
		<CAPACITOR>				
C1	1-124-556-11	ELECT	2200MF	20%	16V	
C2	1-124-556-11	ELECT	2200MF	20%	16V	
		<CONNECTOR>				
DM-1	*1-568-982-11	CONNECTOR, FEMALE 96P				
DM-2	*1-568-982-11	CONNECTOR, FEMALE 96P				
DM-3	*1-568-982-11	CONNECTOR, FEMALE 96P				
DM-4	*1-568-982-11	CONNECTOR, FEMALE 96P				
DM-5	*1-568-982-11	CONNECTOR, FEMALE 96P				
DM-6	*1-564-509-11	PLUG, CONNECTOR 6P				
DM-7	*1-564-515-11	PLUG, CONNECTOR 12P				
DM-8	*1-564-514-11	PLUG, CONNECTOR 11P				
DM-9	*1-564-509-11	PLUG, CONNECTOR 6P				
DM-10	*1-564-516-11	PLUG, CONNECTOR 13P				
DM-11	*1-564-509-11	PLUG, CONNECTOR 6P				
DM-13	*1-564-506-11	PLUG, CONNECTOR 3P				
DM-15	*1-564-509-11	PLUG, CONNECTOR 6P				
DM-16	*1-564-509-11	PLUG, CONNECTOR 6P				
DM-18	1-506-348-99	PIN, CONNECOTR 5P				
DM-19	*1-506-348-99	PIN, CONNECTOR 6P				

DM **DD**

REF.NO.	PART NO.	DESCRIPTION	REMARK
DM-20	1-506-348-99	PIN, CONNECTOR 4P	
DM-21	1-506-348-99	PIN, CONNECTOR 3P	
DM-22	*1-564-507-11	PLUG, CONNECTOR 4P	
DM-23	1-508-742-00	PIN, CONNECTOR 3P	
DM-24	1-508-742-00	PIN, CONNECTOR 3P	
DM-25	*1-564-514-11	PLUG, CONNECTOR 11P	
DM-27	*1-564-507-11	PLUG, CONNECTOR 4P	
DM-29	*1-564-516-11	PLUG, CONNECTOR 13P	
DM-31	*1-564-514-11	PLUG, CONNECTOR 11P	
DM-33	*1-568-982-11	CONNECTOR, FEMALE 96P	
DM-34	*1-568-985-11	CONNECTOR, FEMALE 64P	
DM-38	*1-564-505-11	PLUG, CONNECTOR 2P	

<RESISTOR>

R1	1-215-908-00	METAL OXIDE 33 5% 3W F	
R2	1-215-908-00	METAL OXIDE 33 5% 3W F	
R3	1-216-483-11	METAL OXIDE 2.7K 5% 3W F	
R4	1-216-483-11	METAL OXIDE 2.7K 5% 3W F	
R5	1-216-475-11	METAL OXIDE 120 5% 3W F	

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*A-1346-022-A DD BOARD, COMPLETE
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<CAPACITOR>

C19	1-124-120-11	ELECT 220MF 20% 16V	
C20	1-124-120-11	ELECT 220MF 20% 16V	
C21	1-124-907-11	ELECT 10MF 20% 50V	
C22	1-124-907-11	ELECT 10MF 20% 50V	

<CONNECTOR>

DD-1	*1-568-984-11	CONNECTOR, MALE 96P	

<IC>

IC4	8-759-114-06	IC UPC814G2-1	

<COIL>

L1	1-459-155-00	COIL (WITH CORE) 45UH	
L2	1-459-155-00	COIL (WITH CORE) 45UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1	8-729-205-96	TRANSISTOR 2SC3668-O	
Q2	8-729-205-95	TRANSISTOR 2SA1428-Y	
Q11	8-729-903-82	TRANSISTOR FMW2	
Q12	8-729-920-59	TRANSISTOR IMX2	
Q13	8-729-904-04	TRANSISTOR FMS2	
Q14	8-729-903-10	TRANSISTOR FMW1	
Q15	8-729-920-59	TRANSISTOR IMX2	
Q16	8-729-902-96	TRANSISTOR FMS1	
Q17	8-729-902-96	TRANSISTOR FMS1	
Q18	8-729-902-96	TRANSISTOR FMS1	
Q19	8-729-903-82	TRANSISTOR FMW2	
Q20	8-729-920-59	TRANSISTOR IMX2	
Q21	8-729-903-10	TRANSISTOR FMW1	
Q22	8-729-904-04	TRANSISTOR FMS2	
Q23	8-729-920-59	TRANSISTOR IMX2	
Q24	8-729-902-96	TRANSISTOR FMS1	
Q25	8-729-902-96	TRANSISTOR FMS1	
Q26	8-729-902-96	TRANSISTOR FMS1	
Q27	8-729-903-82	TRANSISTOR FMW2	
Q28	8-729-920-59	TRANSISTOR IMX2	
Q29	8-729-903-10	TRANSISTOR FMW1	
Q30	8-729-904-04	TRANSISTOR FMS2	
Q31	8-729-920-59	TRANSISTOR IMX2	
Q32	8-729-902-96	TRANSISTOR FMS1	
Q33	8-729-902-96	TRANSISTOR FMS1	
Q34	8-729-902-96	TRANSISTOR FMS1	
Q35	8-729-920-59	TRANSISTOR IMX2	
Q36	8-729-903-10	TRANSISTOR FMW1	
Q37	8-729-903-10	TRANSISTOR FMW1	

<RESISTOR>

R26	1-216-619-11	METAL CHIP 47 0.50% 1/10W	
R27	1-216-619-11	METAL CHIP 47 0.50% 1/10W	
R51	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R52	1-216-673-11	METAL CHIP 8.2K 0.50% 1/10W	
R53	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R54	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R55	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R56	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R57	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R58	1-216-639-11	METAL CHIP 330 0.50% 1/10W	
R59	1-216-643-11	METAL CHIP 470 0.50% 1/10W	
R60	1-216-639-11	METAL CHIP 330 0.50% 1/10W	
R61	1-216-643-11	METAL CHIP 470 0.50% 1/10W	
R62	1-216-615-11	METAL CHIP 33 0.50% 1/10W	
R63	1-216-615-11	METAL CHIP 33 0.50% 1/10W	
R64	1-216-649-11	METAL CHIP 820 0.50% 1/10W	
R65	1-216-649-11	METAL CHIP 820 0.50% 1/10W	
R66	1-216-649-11	METAL CHIP 820 0.50% 1/10W	
R67	1-216-649-11	METAL CHIP 820 0.50% 1/10W	
R68	1-216-639-11	METAL CHIP 330 0.50% 1/10W	
R69	1-216-643-11	METAL CHIP 470 0.50% 1/10W	
R70	1-216-615-11	METAL CHIP 33 0.50% 1/10W	
R71	1-216-615-11	METAL CHIP 33 0.50% 1/10W	
R72	1-216-639-11	METAL CHIP 330 0.50% 1/10W	
R73	1-216-643-11	METAL CHIP 470 0.50% 1/10W	
R74	1-216-649-11	METAL CHIP 820 0.50% 1/10W	
R75	1-216-649-11	METAL CHIP 820 0.50% 1/10W	
R76	1-216-649-11	METAL CHIP 820 0.50% 1/10W	
R77	1-216-649-11	METAL CHIP 820 0.50% 1/10W	
R78	1-216-639-11	METAL CHIP 330 0.50% 1/10W	
R79	1-216-643-11	METAL CHIP 470 0.50% 1/10W	
R80	1-216-639-11	METAL CHIP 330 0.50% 1/10W	
R81	1-216-643-11	METAL CHIP 470 0.50% 1/10W	
R82	1-216-615-11	METAL CHIP 33 0.50% 1/10W	
R83	1-216-615-11	METAL CHIP 33 0.50% 1/10W	
R84	1-216-649-11	METAL CHIP 820 0.50% 1/10W	
R85	1-216-649-11	METAL CHIP 820 0.50% 1/10W	
R86	1-216-649-11	METAL CHIP 820 0.50% 1/10W	
R87	1-216-649-11	METAL CHIP 820 0.50% 1/10W	
R88	1-216-635-11	METAL CHIP 220 0.50% 1/10W	
R89	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R90	1-216-647-11	METAL CHIP 680 0.50% 1/10W	
R91	1-216-647-11	METAL CHIP 680 0.50% 1/10W	
R92	1-216-665-11	METAL CHIP 3.9K 0.50% 1/10W	
R93	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	
R94	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R95	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R96	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R97	1-216-655-11	METAL CHIP 1.5K 0.50% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R98	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	
R99	1-216-643-11	METAL CHIP 470 0.50% 1/10W	
R100	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R101	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R102	1-216-655-11	METAL CHIP 1.5K 0.50% 1/10W	
R103	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R104	1-216-663-11	METAL CHIP 3.3K 0.50% 1/10W	
R105	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R106	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R107	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R108	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R110	1-216-697-91	METAL CHIP 82K 0.50% 1/10W	
R111	1-216-661-11	METAL CHIP 2.7K 0.50% 1/10W	
R112	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R113	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R114	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R115	1-216-627-11	METAL CHIP 100 0.50% 1/10W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV1	1-237-505-21	RES, ADJ, CERMET 50K	
RV2	1-237-501-21	RES, ADJ, CERMET 2K	

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*A-1346-189-A DB BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1501	1-126-157-11	ELECT 10MF 20%	16V
C1502	1-126-157-11	ELECT 10MF 20%	16V
C1503	1-126-157-11	ELECT 10MF 20%	16V
C1504	1-126-157-11	ELECT 10MF 20%	16V
C1505	1-126-157-11	ELECT 10MF 20%	16V
C1506	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1507	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1508	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1509	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1510	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1511	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1512	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1513	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1514	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1515	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1516	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1517	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1518	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1519	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1520	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1521	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1522	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1523	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1524	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1525	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1526	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1527	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1528	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1529	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1530	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1531	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1532	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1533	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1534	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1535	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1536	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1537	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1538	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1539	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1540	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1541	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1542	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1543	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1544	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1545	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1546	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1547	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1548	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1549	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1550	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1551	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1552	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1553	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1554	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1555	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1556	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1557	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1558	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1559	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1560	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1561	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1562	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1563	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1564	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1565	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1566	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1567	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1568	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1569	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1570	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1571	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1572	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1573	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1574	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1575	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1577	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1578	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1580	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1581	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C1582	1-164-161-11	CERAMIC CHIP 0.0022MF 10%	50V
C1583	1-164-161-11	CERAMIC CHIP 0.0022MF 10%	50V
C1584	1-164-161-11	CERAMIC CHIP 0.0022MF 10%	50V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1503	8-719-800-76	DIODE 1SS226	
D1504	8-719-800-76	DIODE 1SS226	
D1505	8-719-800-76	DIODE 1SS226	
D1506	8-719-800-76	DIODE 1SS226	
D1507	8-719-800-76	DIODE 1SS226	
D1508	8-719-800-76	DIODE 1SS226	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
DB1501	*1-568-984-11	CONNECTOR, MALE 96P	

<IC>

DB

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1501	8-759-926-48	IC SN74HC244ANS	
IC1502	8-759-926-48	IC SN74HC244ANS	
IC1503	8-759-926-48	IC SN74HC244ANS	
IC1504	8-759-926-48	IC SN74HC244ANS	
IC1505	8-759-926-11	IC SN74HC138ANS	
IC1506	8-759-926-11	IC SN74HC138ANS	
IC1507	8-759-926-11	IC SN74HC138ANS	
IC1508	8-759-926-11	IC SN74HC138ANS	
IC1509	8-759-926-11	IC SN74HC138ANS	
IC1510	8-759-926-11	IC SN74HC138ANS	
IC1511	8-759-995-64	IC MB86023	
IC1512	8-759-995-64	IC MB86023	
IC1513	8-759-995-64	IC MB86023	
IC1514	8-759-995-64	IC MB86023	
IC1515	8-759-995-64	IC MB86023	
IC1516	8-759-995-64	IC MB86023	
IC1517	8-759-995-64	IC MB86023	
IC1518	8-759-995-64	IC MB86023	
IC1519	8-759-995-64	IC MB86023	
IC1520	8-759-995-64	IC MB86023	
IC1521	8-759-995-64	IC MB86023	
IC1522	8-759-995-64	IC MB86023	
IC1523	8-759-995-64	IC MB86023	
IC1524	8-759-995-64	IC MB86023	
IC1525	8-759-995-64	IC MB86023	
IC1526	8-759-995-64	IC MB86023	
IC1527	8-759-995-64	IC MB86023	
IC1528	8-759-995-64	IC MB86023	
IC1529	8-759-995-64	IC MB86023	
IC1530	8-759-995-64	IC MB86023	
IC1531	8-759-995-64	IC MB86023	
IC1532	8-759-995-64	IC MB86023	
IC1533	8-759-995-64	IC MB86023	
IC1534	8-759-995-64	IC MB86023	
IC1535	8-759-995-64	IC MB86023	
IC1536	8-759-995-64	IC MB86023	
IC1537	8-759-995-64	IC MB86023	
IC1538	8-759-995-64	IC MB86023	
IC1539	8-759-995-64	IC MB86023	
IC1540	8-759-995-64	IC MB86023	
IC1541	8-759-995-64	IC MB86023	
IC1542	8-759-995-64	IC MB86023	
IC1543	8-759-995-64	IC MB86023	
IC1544	8-759-995-64	IC MB86023	
IC1545	8-759-995-64	IC MB86023	
IC1546	8-759-995-64	IC MB86023	
IC1547	8-759-100-96	IC UPC4558G2	
IC1548	8-759-100-96	IC UPC4558G2	
IC1549	8-759-114-06	IC UPC814G2-1	
IC1550	8-759-114-06	IC UPC814G2-1	
IC1551	8-759-114-06	IC UPC814G2-1	
IC1552	8-759-908-15	IC TL431CLP	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L1501	1-459-155-00	COIL (WITH CORE) 45UH	
L1502	1-459-155-00	COIL (WITH CORE) 45UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1501	8-729-205-96	TRANSISTOR 2SC3668-O	
Q1502	8-729-205-95	TRANSISTOR 2SA1428-Y	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1501	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1502	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1503	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1504	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1505	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1506	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1507	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1508	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1509	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1510	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1511	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1512	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1513	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1514	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1515	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1516	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1517	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1518	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1519	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1520	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1521	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1522	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1523	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1524	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1525	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1526	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1527	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1528	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1529	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1530	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1531	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1532	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1533	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1534	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1535	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1536	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1537	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R1538	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R1539	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R1540	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1541	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1542	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R1543	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R1544	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R1545	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1546	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1547	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R1548	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R1549	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R1550	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1551	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1552	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1553	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1554	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1555	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1556	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1557	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1558	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1559	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1560	1-216-645-11	METAL CHIP	560	0.50%	1/10W	
R1561	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1562	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R1563	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1565	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1566	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1567	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1568	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1569	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1570	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1571	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1572	1-216-697-91	METAL CHIP	82K	0.50%	1/10W	
R1573	1-216-697-91	METAL CHIP	82K	0.50%	1/10W	
R1574	1-216-697-91	METAL CHIP	82K	0.50%	1/10W	
R1575	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1576	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1577	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1578	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1579	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1580	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1581	1-216-676-11	METAL CHIP	11K	0.50%	1/10W	
R1582	1-216-676-11	METAL CHIP	11K	0.50%	1/10W	
R1583	1-216-676-11	METAL CHIP	11K	0.50%	1/10W	
R1584	1-216-697-91	METAL CHIP	82K	0.50%	1/10W	
R1585	1-216-697-91	METAL CHIP	82K	0.50%	1/10W	
R1586	1-216-697-91	METAL CHIP	82K	0.50%	1/10W	
R1587	1-216-697-91	METAL CHIP	82K	0.50%	1/10W	
R1588	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1589	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1590	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1591	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1592	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1593	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1594	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1595	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1596	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R1597	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1598	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1599	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1601	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1602	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1603	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1604	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1606	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1607	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1608	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1609	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1610	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R1611	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1612	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1613	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1614	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1615	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1616	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1617	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1618	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1619	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1620	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1621	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1622	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1623	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1624	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1625	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1626	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1627	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1628	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1629	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1630	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1631	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1632	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1633	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1634	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1635	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1636	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1637	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1638	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1639	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1640	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1641	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1642	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1643	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1644	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1645	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1646	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1647	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1648	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1649	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1650	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1651	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1652	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1653	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1654	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1655	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1656	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1657	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1658	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1659	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1660	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1661	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1662	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1663	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1664	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1665	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1666	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1667	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1668	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1669	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1670	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1671	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1672	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1673	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1674	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1675	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1676	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1677	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1678	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1679	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1680	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1681	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1682	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1683	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1684	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1685	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1686	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1687	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1688	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1689	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1690	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1691	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1692	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1693	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1694	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1695	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1696	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1697	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1698	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R1699	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1700	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1701	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R1702	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1703	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1704	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R1705	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1706	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1707	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R1708	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1709	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1710	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R1711	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1712	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1713	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R1714	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1715	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1716	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R1717	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1718	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1719	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R1720	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1721	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1722	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R1723	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1724	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R1725	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1726	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1727	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R1728	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1729	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1801	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R1802	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R1803	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R1804	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R1805	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1806	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1807	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1808	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1809	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1810	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1811	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1812	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R1813	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R1814	1-216-645-11	METAL CHIP	560	0.50%	1/10W	
R1815	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R1816	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R1817	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R1818	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1819	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1820	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1821	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R2000	1-216-619-11	METAL CHIP	47	0.50%	1/10W	
R2001	1-216-619-11	METAL CHIP	47	0.50%	1/10W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
	*A-1346-191-A	DA BOARD, COMPLETE ******************				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
		<CAPACITOR>				
C1	1-124-907-11	ELECT	10MF	20%	50V	
C2	1-126-101-11	ELECT	100MF	20%	16V	
C3	1-124-907-11	ELECT	10MF	20%	50V	
C4	1-126-101-11	ELECT	100MF	20%	16V	
C5	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C6	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C7	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C8	1-124-903-11	ELECT	1MF	20%	50V	
C9	1-130-483-00	MYLAR	0.01MF	5%	50V	
C10	1-124-903-11	ELECT	1MF	20%	50V	
C11	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C12	1-124-903-11	ELECT	1MF	20%	50V	
C13	1-130-483-00	MYLAR	0.01MF	5%	50V	
C14	1-124-907-11	ELECT	10MF	20%	50V	
C15	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	
C16	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	
C17	1-136-165-00	FILM	0.1MF	5%	50V	
C18	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C19	1-124-903-11	ELECT	1MF	20%	50V	
C20	1-130-483-00	MYLAR	0.01MF	5%	50V	
C21	1-124-903-11	ELECT	1MF	20%	50V	
C22	1-124-925-11	ELECT	2.2MF	20%	50V	
C23	1-124-907-11	ELECT	10MF	20%	50V	
C24	1-124-907-11	ELECT	10MF	20%	50V	
C25	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	
C26	1-124-903-11	ELECT	1MF	20%	50V	
C27	1-130-483-00	MYLAR	0.01MF	5%	50V	
C28	1-124-903-11	ELECT	1MF	20%	50V	
C29	1-124-925-11	ELECT	2.2MF	20%	50V	
C30	1-124-907-11	ELECT	10MF	20%	50V	
C31	1-124-907-11	ELECT	10MF	20%	50V	
C32	1-124-907-11	ELECT	10MF	20%	50V	
C33	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C34	1-124-927-11	ELECT	4.7MF	20%	50V	
C35	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C36	1-108-792-11	MYLAR	0.001MF	5%	50V	
C38	1-124-925-11	ELECT	2.2MF	20%	50V	
C39	1-124-907-11	ELECT	10MF	20%	50V	
C40	1-126-101-11	ELECT	100MF	20%	16V	
C41	1-130-483-00	MYLAR	0.01MF	5%	50V	
C42	1-124-927-11	ELECT	4.7MF	20%	50V	
C43	1-124-907-11	ELECT	10MF	20%	50V	
C44	1-126-101-11	ELECT	100MF	20%	16V	
C45	1-130-483-00	MYLAR	0.01MF	5%	50V	
C46	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C48	1-124-927-11	ELECT	4.7MF	20%	50V	
C49	1-126-101-11	ELECT	100MF	20%	16V	
C50	1-130-483-00	MYLAR	0.01MF	5%	50V	
C51	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C52	1-108-792-11	MYLAR	0.001MF	5%	50V	
C53	1-124-925-11	ELECT	2.2MF	20%	50V	
C54	1-124-120-11	ELECT	220MF	20%	16V	
C55	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C56	1-163-253-11	CERAMIC CHIP	120PF	5%	50V	
C57	1-124-925-11	ELECT	2.2MF	20%	50V	
C58	1-124-925-11	ELECT	2.2MF	20%	50V	
C59	1-124-925-11	ELECT	2.2MF	20%	50V	

DA

REF.NO.	PART NO.	DESCRIPTION			REMARK
C60	1-124-927-11	ELECT	4.7MF	20%	50V
C61	1-124-917-11	ELECT	33MF	20%	50V
C62	1-124-916-11	ELECT	22MF	20%	50V
C63	1-124-925-11	ELECT	2.2MF	20%	50V
C64	1-124-119-00	ELECT	330MF	20%	16V
C65	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C66	1-130-471-00	FILM	0.001MF	5%	50V
C67	1-130-471-00	FILM	0.001MF	5%	50V
C68	1-124-927-11	ELECT	4.7MF	20%	50V
C69	1-108-796-11	MYLAR	0.0022MF	5%	50V
C70	1-106-359-00	MYLAR	0.0047MF	5%	50V
C71	1-124-910-11	ELECT	47MF	20%	50V
C72	1-124-907-11	ELECT	10MF	20%	50V
C73	1-136-165-00	FILM	0.1MF	5%	50V
C74	1-124-927-11	ELECT	4.7MF	20%	50V
C75	1-124-903-11	ELECT	1MF	20%	50V
C76	1-124-907-11	ELECT	10MF	20%	50V
C77	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C78	1-124-907-11	ELECT	10MF	20%	50V
C79	1-124-907-11	ELECT	10MF	20%	50V
C80	1-124-907-11	ELECT	10MF	20%	50V
C81	1-124-907-11	ELECT	10MF	20%	50V
C82	1-124-907-11	ELECT	10MF	20%	50V
C83	1-124-907-11	ELECT	10MF	20%	50V
C84	1-136-173-00	FILM	0.47MF	5%	50V
C101	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C106	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C107	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C108	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C109	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C110	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C111	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C112	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C113	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C114	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C115	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C116	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C117	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C118	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C201	1-124-907-11	ELECT	10MF	20%	50V
C202	1-130-483-00	MYLAR	0.01MF	5%	50V
C203	1-136-165-00	FILM	0.1MF	5%	50V
C204	1-124-927-11	ELECT	4.7MF	20%	50V
C205	1-124-903-11	ELECT	1MF	20%	50V
C206	1-124-903-11	ELECT	1MF	20%	50V
C207	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C208	1-124-903-11	ELECT	1MF	20%	50V
C209	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C210	1-124-907-11	ELECT	10MF	20%	50V
C211	1-124-910-11	ELECT	47MF	20%	50V
C212	1-124-916-11	ELECT	22MF	20%	50V
C213	1-124-925-11	ELECT	2.2MF	20%	50V
C214	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C215	1-124-925-11	ELECT	2.2MF	20%	50V
C216	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C217	1-124-925-11	ELECT	2.2MF	20%	50V
C218	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C219	1-124-925-11	ELECT	2.2MF	20%	50V
C220	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C221	1-124-927-11	ELECT	4.7MF	20%	50V
C222	1-124-907-11	ELECT	10MF	20%	50V
C223	1-124-925-11	ELECT	2.2MF	20%	50V
C224	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C225	1-124-925-11	ELECT	2.2MF	20%	50V
C226	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C240	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C251	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C253	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C254	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C255	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C256	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C257	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C258	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C259	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C260	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C261	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C262	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C263	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C264	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C265	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C266	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C267	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C268	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C269	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C270	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C271	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C272	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C273	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C274	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C275	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C276	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C277	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C278	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C279	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C280	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C281	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C282	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C401	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C402	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C403	1-124-927-11	ELECT	4.7MF	20%	50V
C404	1-124-927-11	ELECT	4.7MF	20%	50V
C451	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C452	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C601	1-124-907-11	ELECT	10MF	20%	50V
C602	1-124-907-11	ELECT	10MF	20%	50V
C603	1-124-907-11	ELECT	10MF	20%	50V
C651	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C652	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C701	1-124-925-11	ELECT	2.2MF	20%	50V
C702	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C703	1-124-925-11	ELECT	2.2MF	20%	50V
C704	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C801	1-126-101-11	ELECT	100MF	20%	16V
C802	1-126-101-11	ELECT	100MF	20%	16V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1	8-719-900-95	DIODE V09G	
D2	8-719-900-95	DIODE V09G	
D3	8-719-106-71	DIODE RD12M-B2	
D4	8-719-801-78	DIODE 1SS184	
D5	8-719-105-82	DIODE RD5.1M-B2	
D6	8-719-801-78	DIODE 1SS184	
D7	8-719-801-78	DIODE 1SS184	
D8	8-719-104-34	DIODE 1S2836	
D9	8-719-948-45	DIODE ERA22-08	
D10	8-719-801-78	DIODE 1SS184	

DA

REF.NO.	PART NO.	DESCRIPTION	REMARK
D11	8-719-801-78	DIODE 1SS184	
D12	8-719-801-78	DIODE 1SS184	
D13	8-719-801-78	DIODE 1SS184	
D15	8-719-801-78	DIODE 1SS184	
D16	8-719-801-78	DIODE 1SS184	
D201	8-719-800-76	DIODE 1SS226	
D202	8-719-801-78	DIODE 1SS184	
D203	8-719-801-78	DIODE 1SS184	
D204	8-719-801-78	DIODE 1SS184	
D205	8-719-800-76	DIODE 1SS226	
D206	8-719-801-78	DIODE 1SS184	
D207	8-719-801-78	DIODE 1SS184	
D401	8-719-801-78	DIODE 1SS184	
D402	8-719-801-78	DIODE 1SS184	
D602	8-719-801-78	DIODE 1SS184	
D701	8-719-801-78	DIODE 1SS184	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
DA1	*1-568-984-11	CONNECTOR, MALE 96P	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1	8-759-701-79	IC NJM7812FA	
IC2	8-759-700-69	IC NJM79L12A	
IC3	8-759-300-78	IC HD14538BFP	
IC4	8-759-100-96	IC UPC4558G2	
IC5	8-759-300-78	IC HD14538BFP	
IC6	8-759-100-96	IC UPC4558G2	
IC7	8-759-100-93	IC UPC393G2	
IC8	8-759-300-78	IC HD14538BFP	
IC9	8-759-114-06	IC UPC814G2-1	
IC10	8-759-300-78	IC HD14538BFP	
IC11	8-759-100-93	IC UPC393G2	
IC12	8-759-300-71	IC HD14053BFP	
IC13	8-759-300-78	IC HD14538BFP	
IC14	8-759-100-93	IC UPC393G2	
IC15	8-749-922-79	IC MC-8638	
IC16	8-749-922-80	IC MC-8639	
IC17	8-759-100-93	IC UPC393G2	
IC18	8-759-114-06	IC UPC814G2-1	
IC20	8-759-114-06	IC UPC814G2-1	
IC21	8-759-114-06	IC UPC814G2-1	
IC22	8-759-100-60	IC UPC1377C	
IC201	8-752-033-65	IC CXA1158P	
IC202	8-759-925-74	IC SN74HC04ANS	
IC203	8-759-114-06	IC UPC814G2-1	
IC204	8-759-114-06	IC UPC814G2-1	
IC205	8-759-114-06	IC UPC814G2-1	
IC206	8-759-114-06	IC UPC814G2-1	
IC207	8-759-114-06	IC UPC814G2-1	
IC208	8-759-100-96	IC UPC4558G2	
IC209	8-759-100-96	IC UPC4558G2	
IC210	8-759-100-96	IC UPC4558G2	
IC211	8-759-114-06	IC UPC814G2-1	
IC212	8-759-114-06	IC UPC814G2-1	
IC213	8-759-300-71	IC HD14053BFP	
IC214	8-759-114-06	IC UPC814G2-1	
IC215	8-759-114-06	IC UPC814G2-1	
IC216	8-759-114-06	IC UPC814G2-1	
IC401	8-759-114-06	IC UPC814G2-1	
IC402	8-759-926-11	IC SN74HC138ANS	
IC601	8-759-100-96	IC UPC4558G2	
IC701	8-759-114-06	IC UPC814G2-1	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L1	1-459-155-00	COIL (WITH CORE) 45UH	
L2	1-459-155-00	COIL (WITH CORE) 45UH	
L801	1-459-155-00	COIL (WITH CORE) 45UH	
L802	1-459-155-00	COIL (WITH CORE) 45UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q2	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4	8-729-216-22	TRANSISTOR 2SA1162-G	
Q5	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q7	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8	8-729-216-22	TRANSISTOR 2SA1162-G	
Q9	8-729-105-74	TRANSISTOR 2SK523-M1	
Q10	8-729-216-22	TRANSISTOR 2SA1162-G	
Q11	8-729-216-22	TRANSISTOR 2SA1162-G	
Q12	8-729-216-22	TRANSISTOR 2SA1162-G	
Q13	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q14	8-729-901-01	TRANSISTOR DTC144EK	
Q15	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q16	8-729-926-23	TRANSISTOR FMW5	
Q17	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q18	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q19	8-729-904-04	TRANSISTOR FMS2	
Q20	8-729-926-23	TRANSISTOR FMW5	
Q21	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q22	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q201	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q202	8-729-216-22	TRANSISTOR 2SA1162-G	
Q203	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q204	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q205	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q206	8-729-903-82	TRANSISTOR FMW2	
Q207	8-729-920-59	TRANSISTOR IMX2	
Q208	8-729-904-04	TRANSISTOR FMS2	
Q209	8-729-926-23	TRANSISTOR FMW5	
Q210	8-729-926-23	TRANSISTOR FMW5	
Q211	8-729-920-59	TRANSISTOR IMX2	
Q212	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q213	8-729-216-22	TRANSISTOR 2SA1162-G	
Q214	8-729-926-23	TRANSISTOR FMW5	
Q215	8-729-216-22	TRANSISTOR 2SA1162-G	
Q216	8-729-903-82	TRANSISTOR FMW2	
Q217	8-729-920-59	TRANSISTOR IMX2	
Q218	8-729-904-04	TRANSISTOR FMS2	
Q219	8-729-926-23	TRANSISTOR FMW5	
Q220	8-729-926-23	TRANSISTOR FMW5	
Q221	8-729-920-59	TRANSISTOR IMX2	
Q222	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q223	8-729-216-22	TRANSISTOR 2SA1162-G	
Q224	8-729-903-82	TRANSISTOR FMW2	
Q225	8-729-920-59	TRANSISTOR IMX2	
Q226	8-729-904-04	TRANSISTOR FMS2	
Q227	8-729-926-23	TRANSISTOR FMW5	
Q228	8-729-926-23	TRANSISTOR FMW5	
Q229	8-729-920-59	TRANSISTOR IMX2	
Q230	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q231	8-729-216-22	TRANSISTOR 2SA1162-G	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q232	8-729-902-96	TRANSISTOR FMS1	
Q233	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q234	8-729-902-96	TRANSISTOR FMS1	
Q235	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q236	8-729-926-23	TRANSISTOR FMW5	
Q237	8-729-216-22	TRANSISTOR 2SA1162-G	
Q238	8-729-926-23	TRANSISTOR FMW5	
Q239	8-729-216-22	TRANSISTOR 2SA1162-G	
Q401	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q402	8-729-216-22	TRANSISTOR 2SA1162-G	
Q602	8-729-926-23	TRANSISTOR FMW5	
Q603	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q604	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q605	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q701	8-729-903-82	TRANSISTOR FMW2	
Q702	8-729-920-59	TRANSISTOR IMX2	
Q703	8-729-904-04	TRANSISTOR FMS2	
Q704	8-729-926-23	TRANSISTOR FMW5	
Q705	8-729-926-23	TRANSISTOR FMW5	
Q706	8-729-920-59	TRANSISTOR IMX2	
Q707	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q708	8-729-216-22	TRANSISTOR 2SA1162-G	
Q709	8-729-904-04	TRANSISTOR FMS2	
Q801	8-729-205-96	TRANSISTOR 2SC3668-O	
Q802	8-729-205-95	TRANSISTOR 2SA1428-Y	
Q803	8-729-901-01	TRANSISTOR DTC144EK	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R3	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R4	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R5	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R6	1-208-812-11	METAL CHIP	18K	0.50%	1/10W	
R7	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R8	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R9	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R10	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R11	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R12	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R13	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R14	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R15	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R16	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R17	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R18	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R19	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R20	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R21	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R22	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R23	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R24	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R25	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R26	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R27	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R28	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R29	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R30	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R31	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R32	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R33	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R34	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R35	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R36	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R37	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R38	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R39	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R40	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R41	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R42	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R43	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R44	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R45	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R46	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R47	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R48	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R49	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R50	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R51	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R52	1-216-693-11	METAL CHIP	56K	0.50%	1/10W	
R53	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R54	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R55	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R56	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R57	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R58	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R59	1-216-693-11	METAL CHIP	56K	0.50%	1/10W	
R60	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R61	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R62	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R63	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R64	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R65	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R66	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R67	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R68	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R69	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R70	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R71	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R72	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R73	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R74	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R75	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R76	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R77	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R78	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R79	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R80	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R81	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R82	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R83	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R84	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R85	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R86	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R87	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R88	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R89	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R90	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R91	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R92	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R93	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R94	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R95	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R96	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R97	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R98	1-216-091-00	METAL GLAZE	56K	5%	1/10W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R99	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R100	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R101	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R102	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R103	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R104	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R105	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R106	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R107	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R108	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R109	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R110	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R111	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R112	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R113	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R114	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R115	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R116	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R117	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R118	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R119	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R120	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R121	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R122	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R123	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R124	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R125	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R126	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R127	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R128	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R129	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R130	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R132	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R133	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R134	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R135	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R136	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R137	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R138	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R139	1-216-696-11	METAL CHIP	75K	0.50%	1/10W	
R140	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R141	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R142	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R143	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R144	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R145	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R146	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R147	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R148	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R149	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R150	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R151	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R152	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R153	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R154	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R155	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R156	1-208-812-11	METAL CHIP	18K	0.50%	1/10W	
R157	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R158	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R159	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R160	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R161	1-216-697-91	METAL CHIP	82K	0.50%	1/10W	
R162	1-216-697-91	METAL CHIP	82K	0.50%	1/10W	
R163	1-216-643-11	METAL CHIP	470	0.50%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R164	1-216-697-91	METAL CHIP	82K	0.50%	1/10W	
R165	1-216-697-91	METAL CHIP	82K	0.50%	1/10W	
R166	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R167	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R168	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R169	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R170	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R171	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R172	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R173	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R174	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R176	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R177	1-216-693-11	METAL CHIP	56K	0.50%	1/10W	
R178	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R179	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R180	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R181	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R182	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R201	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R202	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R203	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R204	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R205	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R206	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R207	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R208	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R209	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R210	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R211	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R212	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R213	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R214	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R215	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R216	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R217	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R218	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R219	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R220	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R221	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R222	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R223	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R224	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R225	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R226	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R227	1-216-652-11	METAL CHIP	1.1K	0.50%	1/10W	
R228	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R229	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R230	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R231	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R232	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R233	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R234	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R235	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R236	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R237	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R238	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R239	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R240	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R241	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R242	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R243	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R244	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R245	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R246	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R247	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R248	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R249	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R250	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R251	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R252	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R253	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R254	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R255	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R256	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R257	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R258	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R259	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R260	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R261	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R262	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R263	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R264	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R265	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R266	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R267	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R268	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R269	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R270	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R271	1-216-615-11	METAL CHIP	33	0.50%	1/10W	
R272	1-216-615-11	METAL CHIP	33	0.50%	1/10W	
R273	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R274	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R275	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R276	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R277	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R278	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R279	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R280	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R281	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R282	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R283	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R284	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R285	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R286	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R287	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R288	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R289	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R290	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R291	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R292	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R293	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R294	1-216-615-11	METAL CHIP	33	0.50%	1/10W	
R295	1-216-615-11	METAL CHIP	33	0.50%	1/10W	
R296	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R297	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R298	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R299	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R300	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R301	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R302	1-216-647-11	METAL CHIP	680	0.50%	1/10W	
R303	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R304	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R305	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R306	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R307	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R308	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R309	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R310	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R311	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R312	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R313	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R314	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R315	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R316	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R317	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R318	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R319	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R320	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R321	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R322	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R323	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R324	1-216-615-11	METAL CHIP	33	0.50%	1/10W	
R325	1-216-615-11	METAL CHIP	33	0.50%	1/10W	
R326	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R327	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R328	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R329	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R330	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R331	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R332	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R334	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R335	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R336	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R337	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R338	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R339	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R340	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R341	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R342	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R343	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R344	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R345	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R346	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R347	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R348	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R349	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R350	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R351	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R352	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R353	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R354	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R355	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R356	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R357	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R358	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R359	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R360	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R361	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R364	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R365	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R366	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R368	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R369	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R370	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R401	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R402	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R403	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R404	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R405	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R406	1-216-101-00	METAL GLAZE	150K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R407	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R408	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R409	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R410	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R411	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R412	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R413	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R414	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R415	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R416	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R417	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R418	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R601	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R602	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R603	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R604	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R607	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R608	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R609	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R610	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R611	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R612	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R613	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R614	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R615	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R701	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R702	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R703	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R704	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R705	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R706	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R707	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R708	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R709	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R710	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R711	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R712	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R713	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R714	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R715	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R716	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R717	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R718	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R719	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R720	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R721	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R722	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R723	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R724	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R725	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R726	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R727	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R728	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R729	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R730	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R732	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R733	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R801	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R802	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R803	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R804	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R807	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV1	1-237-503-21	RES, ADJ, CERMET 10K	
RV2	1-237-503-21	RES, ADJ, CERMET 10K	
RV3	1-237-501-21	RES, ADJ, CERMET 2K	
RV4	1-237-506-21	RES, ADJ, CERMET 100K	
RV5	1-237-505-21	RES, ADJ, CERMET 50K	
RV6	1-237-504-21	RES, ADJ, CERMET 20K	

<SWITCH>

S1	1-570-865-11	SWITCH, SLIDE	
S2	1-570-865-11	SWITCH, SLIDE	

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*A-1346-208-A DE BOARD, COMPLETE
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<CAPACITOR>

C501	1-126-157-11	ELECT	10MF	20%	16V	
C502	1-126-157-11	ELECT	10MF	20%	16V	
C503	1-126-157-11	ELECT	10MF	20%	16V	
C504	1-126-157-11	ELECT	10MF	20%	16V	
C505	1-126-157-11	ELECT	10MF	20%	16V	
C506	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C507	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C508	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C509	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C510	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C511	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C512	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C513	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C514	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C515	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C516	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C517	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C518	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C519	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C520	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C521	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C522	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C523	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C524	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C525	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C526	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C527	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C528	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C529	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C530	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C531	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C532	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C533	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C534	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C535	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C536	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C537	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C538	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C539	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C540	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C541	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C542	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C543	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C544	1-163-031-11	CERAMIC CHIP	0.01MF		50V	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
C545	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C546	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C547	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C548	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C549	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C550	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C551	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C552	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C553	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C554	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C555	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C556	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C557	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C558	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C559	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C560	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C561	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C562	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C563	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C564	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C565	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C566	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C567	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C568	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C569	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C570	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C571	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C572	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C573	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C574	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C575	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C576	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C577	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C578	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C579	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C580	1-163-031-11	CERAMIC CHIP 0.01MF	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
DE-501*	1-568-984-11	CONNECTOR, MALE 96P	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC501	8-759-926-48	IC SN74HC244ANS	
IC502	8-759-926-48	IC SN74HC244ANS	
IC503	8-759-926-48	IC SN74HC244ANS	
IC504	8-759-926-48	IC SN74HC244ANS	
IC505	8-759-926-11	IC SN74HC138ANS	
IC506	8-759-926-11	IC SN74HC138ANS	
IC507	8-759-926-11	IC SN74HC138ANS	
IC508	8-759-926-11	IC SN74HC138ANS	
IC509	8-759-926-11	IC SN74HC138ANS	
IC510	8-759-995-64	IC MB86023	
IC511	8-759-995-64	IC MB86023	
IC512	8-759-995-64	IC MB86023	
IC513	8-759-995-64	IC MB86023	
IC514	8-759-995-64	IC MB86023	
IC515	8-759-995-64	IC MB86023	
IC516	8-759-995-64	IC MB86023	
IC517	8-759-995-64	IC MB86023	
IC518	8-759-995-64	IC MB86023	
IC519	8-759-995-64	IC MB86023	
IC520	8-759-995-64	IC MB86023	
IC521	8-759-995-64	IC MB86023	
IC522	8-759-995-64	IC MB86023	
IC523	8-759-995-64	IC MB86023	
IC524	8-759-995-64	IC MB86023	
IC525	8-759-995-64	IC MB86023	
IC526	8-759-995-64	IC MB86023	
IC527	8-759-995-64	IC MB86023	
IC528	8-759-995-64	IC MB86023	
IC529	8-759-995-64	IC MB86023	
IC533	8-759-995-64	IC MB86023	
IC534	8-759-995-64	IC MB86023	
IC535	8-759-995-64	IC MB86023	
IC536	8-759-995-64	IC MB86023	
IC537	8-759-908-15	IC TL431CLP	
IC538	8-759-114-06	IC UPC814G2-1	
IC539	8-759-114-06	IC UPC814G2-1	
IC540	8-759-114-06	IC UPC814G2-1	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L501	1-459-155-00	COIL (WITH CORE) 45UH	
L502	1-459-155-00	COIL (WITH CORE) 45UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q501	8-729-205-96	TRANSISTOR 2SC3668-O	
Q502	8-729-205-95	TRANSISTOR 2SA1428-Y	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R501	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R502	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R503	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R504	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R505	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R506	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R507	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R508	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R509	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R510	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R511	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R512	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R513	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R514	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R515	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R516	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R517	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R518	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R519	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R520	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R521	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R522	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R523	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R524	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R525	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R526	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R527	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R528	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R529	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R530	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R531	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R532	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R533	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R534	1-216-049-00	METAL GLAZE 1K 5%	1/10W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R535	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R536	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R537	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R538	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R539	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R540	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R541	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R542	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R543	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R544	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R545	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R546	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R547	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R548	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R549	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R550	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R551	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R552	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R553	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R554	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R555	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R556	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R557	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R558	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R559	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R560	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R561	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R562	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R563	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R564	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R565	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R566	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R567	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R568	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R569	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R570	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R571	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R572	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R573	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R574	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R575	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R576	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R577	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R578	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R579	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R580	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R581	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R582	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R583	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R584	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R585	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R586	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R587	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R588	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R589	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R590	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R591	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R592	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R593	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R594	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R595	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R596	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R597	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R598	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R599	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R600	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R601	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R602	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R603	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R604	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R605	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R606	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R607	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R608	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R609	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R610	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R611	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R612	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R613	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R614	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R615	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R635	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R636	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R637	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R638	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R639	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R640	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R641	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R642	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R643	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R644	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R645	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R646	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R647	1-216-627-11	METAL CHIP	100	0.50%	1/10W	
R648	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R649	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R650	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R651	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R652	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R653	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R654	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R655	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R656	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R657	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R658	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R659	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R660	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R661	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R662	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R663	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R664	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R665	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R666	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R667	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R668	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R689	1-216-619-11	METAL CHIP	47	0.50%	1/10W	
R690	1-216-619-11	METAL CHIP	47	0.50%	1/10W	

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	*A-1346-217-A	DC BOARD, COMPLETE ******************
	4-382-854-11	SCREW (M3X10), P, SW (+)
	*4-395-525-01	HOLDER (D), TR
	*4-395-527-01	HOLDER (B), TR
	4-874-042-00	SHEET, INSULATING

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<CAPACITOR>			
C1	1-124-122-11	ELECT	100MF	20%	50V
C2	1-126-101-11	ELECT	100MF	20%	16V
C3	1-124-122-11	ELECT	100MF	20%	50V
C4	1-126-101-11	ELECT	100MF	20%	16V
C5	1-124-122-11	ELECT	100MF	20%	50V
C6	1-102-963-00	CERAMIC	33PF	5%	50V
C7	1-102-963-00	CERAMIC	33PF	5%	50V
C8	1-136-157-00	FILM	0.022MF	5%	50V
C9	1-124-903-11	ELECT	1MF	20%	50V
C10	1-124-122-11	ELECT	100MF	20%	50V
C11	1-102-963-00	CERAMIC	33PF	5%	50V
C12	1-102-963-00	CERAMIC	33PF	5%	50V
C13	1-136-157-00	FILM	0.022MF	5%	50V
C14	1-124-903-11	ELECT	1MF	20%	50V
C15	1-124-122-11	ELECT	100MF	20%	50V
C16	1-102-963-00	CERAMIC	33PF	5%	50V
C17	1-102-963-00	CERAMIC	33PF	5%	50V
C18	1-136-157-00	FILM	0.022MF	5%	50V
C19	1-124-903-11	ELECT	1MF	20%	50V
C20	1-136-173-00	FILM	0.47MF	5%	50V
C21	1-124-556-11	ELECT	2200MF	20%	16V
C22	1-124-556-11	ELECT	2200MF	20%	16V
C23	1-124-556-11	ELECT	2200MF	20%	16V
C24	1-136-165-00	FILM	0.1MF	5%	50V
C25	1-136-165-00	FILM	0.1MF	5%	50V
C26	1-136-165-00	FILM	0.1MF	5%	50V
C27	1-136-165-00	FILM	0.1MF	5%	50V
C28	1-136-165-00	FILM	0.1MF	5%	50V
C29	1-136-165-00	FILM	0.1MF	5%	50V
C30	1-136-165-00	FILM	0.1MF	5%	50V
C31	1-136-165-00	FILM	0.1MF	5%	50V
C32	1-136-165-00	FILM	0.1MF	5%	50V
C33	1-124-477-11	ELECT	47MF	20%	16V
C34	1-124-903-11	ELECT	1MF	20%	50V
C35	1-124-360-00	ELECT	1000MF	20%	16V
C36	1-124-907-11	ELECT	10MF	20%	50V
C37	1-124-907-11	ELECT	10MF	20%	50V
C101	1-102-824-00	CERAMIC	470PF	5%	50V
C102	1-124-903-11	ELECT	1MF	20%	50V
C103	1-101-004-00	CERAMIC	0.01MF		50V
C104	1-124-122-11	ELECT	100MF	20%	50V
C105	1-124-922-11	ELECT	1000MF	20%	50V
C106	1-124-903-11	ELECT	1MF	20%	50V
C107	1-101-004-00	CERAMIC	0.01MF		50V
C108	1-124-122-11	ELECT	100MF	20%	50V
C109	1-124-922-11	ELECT	1000MF	20%	50V
C110	1-136-159-00	FILM	0.033MF	5%	50V
C111	1-136-159-00	FILM	0.033MF	5%	50V
C201	1-130-473-00	MYLAR	0.0015MF	5%	50V
C202	1-102-973-00	CERAMIC	100PF	5%	50V
C203	1-102-973-00	CERAMIC	100PF	5%	50V
C204	1-136-153-00	FILM	0.01MF	5%	50V
C205	1-124-477-11	ELECT	47MF	20%	16V
C206	1-124-122-11	ELECT	100MF	20%	50V
C207	1-101-004-00	CERAMIC	0.01MF		50V
C208	1-124-122-11	ELECT	100MF	20%	50V
C209	1-101-004-00	CERAMIC	0.01MF		50V
C210	1-130-473-00	MYLAR	0.0015MF	5%	50V
C211	1-102-973-00	CERAMIC	100PF	5%	50V
C212	1-102-973-00	CERAMIC	100PF	5%	50V
C213	1-136-153-00	FILM	0.01MF	5%	50V
C214	1-124-477-11	ELECT	47MF	20%	16V
C215	1-124-122-11	ELECT	100MF	20%	50V
C216	1-101-004-00	CERAMIC	0.01MF		50V
C217	1-124-122-11	ELECT	100MF	20%	50V
C218	1-101-004-00	CERAMIC	0.01MF		50V
C219	1-130-473-00	MYLAR	0.0015MF	5%	50V
C220	1-102-973-00	CERAMIC	100PF	5%	50V
C221	1-102-973-00	CERAMIC	100PF	5%	50V
C222	1-136-153-00	FILM	0.01MF	5%	50V
C223	1-124-477-11	ELECT	47MF	20%	16V
C224	1-124-122-11	ELECT	100MF	20%	50V
C225	1-101-004-00	CERAMIC	0.01MF		50V
C226	1-124-122-11	ELECT	100MF	20%	50V
C227	1-101-004-00	CERAMIC	0.01MF		50V
C228	1-124-907-11	ELECT	10MF	20%	50V
C229	1-101-004-00	CERAMIC	0.01MF		50V
C230	1-124-907-11	ELECT	10MF	20%	50V
C231	1-101-004-00	CERAMIC	0.01MF		50V
C232	1-124-907-11	ELECT	10MF	20%	50V
C233	1-101-004-00	CERAMIC	0.01MF		50V
C234	1-124-907-11	ELECT	10MF	20%	50V
C235	1-101-004-00	CERAMIC	0.01MF		50V
C236	1-124-907-11	ELECT	10MF	20%	50V
C237	1-101-004-00	CERAMIC	0.01MF		50V
C238	1-124-907-11	ELECT	10MF	20%	50V
C239	1-101-004-00	CERAMIC	0.01MF		50V
C243	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C244	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C245	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C246	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C247	1-130-471-00	MYLAR	0.001MF	5%	50V
C248	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C249	1-130-471-00	MYLAR	0.001MF	5%	50V
C250	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C251	1-130-471-00	MYLAR	0.001MF	5%	50V
C301	1-130-473-00	MYLAR	0.0015MF	5%	50V
C302	1-102-973-00	CERAMIC	100PF	5%	50V
C303	1-102-973-00	CERAMIC	100PF	5%	50V
C304	1-136-153-00	FILM	0.01MF	5%	50V
C305	1-124-477-11	ELECT	47MF	20%	16V
C306	1-124-122-11	ELECT	100MF	20%	50V
C307	1-101-004-00	CERAMIC	0.01MF		50V
C308	1-124-122-11	ELECT	100MF	20%	50V
C309	1-101-004-00	CERAMIC	0.01MF		50V
C310	1-130-473-00	MYLAR	0.0015MF	5%	50V
C311	1-102-973-00	CERAMIC	100PF	5%	50V
C312	1-102-973-00	CERAMIC	100PF	5%	50V
C313	1-136-153-00	FILM	0.01MF	5%	50V
C314	1-124-477-11	ELECT	47MF	20%	16V
C315	1-124-122-11	ELECT	100MF	20%	50V
C316	1-101-004-00	CERAMIC	0.01MF		50V
C317	1-124-122-11	ELECT	100MF	20%	50V
C318	1-101-004-00	CERAMIC	0.01MF		50V
C319	1-130-473-00	MYLAR	0.0015MF	5%	50V
C320	1-102-973-00	CERAMIC	100PF	5%	50V
C321	1-102-973-00	CERAMIC	100PF	5%	50V
C322	1-136-153-00	FILM	0.01MF	5%	50V
C323	1-124-477-11	ELECT	47MF	20%	16V
C324	1-124-477-11	ELECT	47MF	20%	16V
C325	1-101-004-00	CERAMIC	0.01MF		50V
C326	1-124-477-11	ELECT	47MF	20%	16V
C327	1-101-004-00	CERAMIC	0.01MF		50V
C328	1-124-907-11	ELECT	10MF	20%	50V
C329	1-101-004-00	CERAMIC	0.01MF		50V

DC

REF.NO.	PART NO.	DESCRIPTION			REMARK
C330	1-124-907-11	ELECT	10MF	20%	50V
C331	1-101-004-00	CERAMIC	0.01MF		50V
C332	1-124-907-11	ELECT	10MF	20%	50V
C333	1-101-004-00	CERAMIC	0.01MF		50V
C334	1-124-907-11	ELECT	10MF	20%	50V
C335	1-101-004-00	CERAMIC	0.01MF		50V
C336	1-124-907-11	ELECT	10MF	20%	50V
C337	1-101-004-00	CERAMIC	0.01MF		50V
C338	1-124-907-11	ELECT	10MF	20%	50V
C339	1-101-004-00	CERAMIC	0.01MF		50V
C343	1-102-119-00	CERAMIC	0.0015MF	10%	50V
C344	1-102-119-00	CERAMIC	0.0015MF	10%	50V
C345	1-102-119-00	CERAMIC	0.0015MF	10%	50V
C346	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C347	1-130-471-00	MYLAR	0.001MF	5%	50V
C348	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C349	1-130-471-00	MYLAR	0.001MF	5%	50V
C350	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C351	1-130-471-00	MYLAR	0.001MF	5%	50V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D1	8-719-900-95	DIODE V09G
D2	8-719-900-95	DIODE V09G
D3	8-719-900-95	DIODE V09G
D4	8-719-911-19	DIODE 1SS119
D5	8-719-900-95	DIODE V09G
D6	8-719-911-19	DIODE 1SS119
D7	8-719-900-95	DIODE V09G
D8	8-719-911-19	DIODE 1SS119
D9	8-719-911-19	DIODE 1SS119
D10	8-719-911-19	DIODE 1SS119
D11	8-719-911-19	DIODE 1SS119
D12	8-719-911-19	DIODE 1SS119
D13	8-719-911-19	DIODE 1SS119
D14	8-719-911-19	DIODE 1SS119
D15	8-719-911-19	DIODE 1SS119
D16	8-719-911-19	DIODE 1SS119
D101	8-719-911-19	DIODE 1SS119
D102	8-719-908-20	DIODE ERC88-009
D103	8-719-908-20	DIODE ERC88-009
D104	8-719-911-19	DIODE 1SS119
D105	8-719-908-20	DIODE ERC88-009
D106	8-719-908-20	DIODE ERC88-009
D201	8-719-110-41	DIODE RD15ESB2
D202	8-719-109-66	DIODE RD3.3ESB2
D203	8-719-911-19	DIODE 1SS119
D204	8-719-911-19	DIODE 1SS119
D205	8-719-110-41	DIODE RD15ESB2
D206	8-719-109-66	DIODE RD3.3ESB2
D207	8-719-911-19	DIODE 1SS119
D208	8-719-911-19	DIODE 1SS119
D209	8-719-110-41	DIODE RD15ESB2
D210	8-719-109-66	DIODE RD3.3ESB2
D211	8-719-911-19	DIODE 1SS119
D212	8-719-911-19	DIODE 1SS119
D301	8-719-110-41	DIODE RD15ESB2
D302	8-719-109-66	DIODE RD3.3ESB2
D303	8-719-911-19	DIODE 1SS119
D304	8-719-911-19	DIODE 1SS119
D305	8-719-110-41	DIODE RD15ESB2
D306	8-719-109-66	DIODE RD3.3ESB2
D307	8-719-911-19	DIODE 1SS119
D308	8-719-911-19	DIODE 1SS119

REF.NO.	PART NO.	DESCRIPTION	REMARK
D309	8-719-110-41	DIODE RD15ESB2	
D310	8-719-109-66	DIODE RD3.3ESB2	
D311	8-719-911-19	DIODE 1SS119	
D312	8-719-911-19	DIODE 1SS119	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
DC-1	*1-564-514-11	PLUG, CONNECTOR 11P
DC-2	*1-564-509-11	PLUG, CONNECTOR 6P
DC-3	*1-564-515-11	PLUG, CONNECTOR 12P
DC-4	*1-564-507-11	PLUG, CONNECTOR 4P
DC-5	*1-564-507-11	PLUG, CONNECTOR 4P
DC-6	*1-564-507-11	PLUG, CONNECTOR 4P
DC-7	*1-564-507-11	PLUG, CONNECTOR 4P
DC-8	*1-564-507-11	PLUG, CONNECTOR 4P
DC-9	*1-564-507-11	PLUG, CONNECTOR 4P
DC-10	*1-564-508-11	PLUG, CONNECTOR 5P
DC-11	*1-564-508-11	PLUG, CONNECTOR 5P
DC-12	*1-564-508-11	PLUG, CONNECTOR 5P
DC-13	*1-564-509-11	PLUG, CONNECTOR 6P
DC-14	1-508-742-00	PIN, CONNECTOR 3P
DC-15	1-508-742-00	PIN, CONNECTOR 3P
DC-16	1-508-742-00	PIN, CONNECTOR 3P

<FERRITE BEAD>

REF.NO.	PART NO.	DESCRIPTION
FB1	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH
FB2	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH
FB3	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH
FB4	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC1	8-759-701-79	IC NJM7812FA
IC2	8-759-929-65	IC LM7912CT
IC3	8-759-145-58	IC UPC4558C
IC4	8-759-113-13	IC UPC1498H
IC5	8-759-145-58	IC UPC4558C
IC6	8-759-113-13	IC UPC1498H
IC7	8-759-145-58	IC UPC4558C
IC8	8-759-113-13	IC UPC1498H
IC9	8-759-145-58	IC UPC4558C
IC101	8-759-109-82	IC UPC814C
IC102	8-759-109-82	IC UPC814C
IC103	8-759-109-82	IC UPC814C
IC201	8-759-973-02	IC LM6364N
IC202	8-759-973-02	IC LM6364N
IC203	8-759-973-02	IC LM6364N
IC301	8-759-973-02	IC LM6364N
IC302	8-759-973-02	IC LM6364N
IC303	8-759-973-02	IC LM6364N

<COIL>

REF.NO.	PART NO.	DESCRIPTION
L103	1-459-155-00	COIL (WITH CORE) 45UH
L104	1-459-155-00	COIL (WITH CORE) 45UH

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q1	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q2	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q3	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q4	8-729-900-89	TRANSISTOR DTC144ES
Q5	8-729-900-89	TRANSISTOR DTC144ES

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q6	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8	8-729-900-89	TRANSISTOR DTC144ES	
Q9	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q10	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q11	8-729-900-89	TRANSISTOR DTC144ES	
Q12	8-729-900-89	TRANSISTOR DTC144ES	
Q13	8-729-900-89	TRANSISTOR DTC144ES	
Q14	8-729-900-89	TRANSISTOR DTC144ES	
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q102	8-729-105-74	TRANSISTOR 2SK523-M1	
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q104	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q105	8-729-142-68	TRANSISTOR 2SJ143	
Q106	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q107	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q108	8-729-142-69	TRANSISTOR 2SK817	
Q201	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q202	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q203	8-729-142-74	TRANSISTOR 2SD1977	
Q204	8-729-142-70	TRANSISTOR 2SB1315	
Q205	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q206	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q207	8-729-142-74	TRANSISTOR 2SD1977	
Q208	8-729-142-70	TRANSISTOR 2SB1315	
Q209	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q210	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q211	8-729-142-74	TRANSISTOR 2SD1977	
Q212	8-729-142-70	TRANSISTOR 2SB1315	
Q301	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q302	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q303	8-729-142-74	TRANSISTOR 2SD1977	
Q304	8-729-142-70	TRANSISTOR 2SB1315	
Q305	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q306	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q307	8-729-142-74	TRANSISTOR 2SD1977	
Q308	8-729-142-70	TRANSISTOR 2SB1315	
Q309	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q310	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q311	8-729-142-74	TRANSISTOR 2SD1977	
Q312	8-729-142-70	TRANSISTOR 2SB1315	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1	1-215-463-00	METAL	56K	1%	1/4W	
R2	1-215-445-00	METAL	10K	1%	1/4W	
R3	1-215-445-00	METAL	10K	1%	1/4W	
R4	1-214-800-11	METAL	2.2	1%	1/2W	
R5	1-214-800-11	METAL	2.2	1%	1/2W	
R6	1-215-429-00	METAL	2.2K	1%	1/4W	
R7	1-215-421-00	METAL	1K	1%	1/4W	
R8	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R9	1-249-433-11	CARBON	22K	5%	1/4W	
R10	1-249-417-11	CARBON	1K	5%	1/4W	
R11	1-249-441-11	CARBON	100K	5%	1/4W	
R12	1-249-429-11	CARBON	10K	5%	1/4W	
R13	1-249-429-11	CARBON	10K	5%	1/4W	
R14	1-249-429-11	CARBON	10K	5%	1/4W	
R15	1-215-463-00	METAL	56K	1%	1/4W	
R16	1-215-445-00	METAL	10K	1%	1/4W	
R17	1-215-445-00	METAL	10K	1%	1/4W	
R18	1-214-800-11	METAL	2.2	1%	1/2W	
R19	1-214-800-11	METAL	2.2	1%	1/2W	
R20	1-215-429-00	METAL	2.2K	1%	1/4W	
R21	1-215-421-00	METAL	1K	1%	1/4W	
R22	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R23	1-249-433-11	CARBON	22K	5%	1/4W	
R24	1-249-417-11	CARBON	1K	5%	1/4W	
R25	1-249-441-11	CARBON	100K	5%	1/4W	
R26	1-249-429-11	CARBON	10K	5%	1/4W	
R27	1-249-429-11	CARBON	10K	5%	1/4W	
R28	1-249-429-11	CARBON	10K	5%	1/4W	
R29	1-215-463-00	METAL	56K	1%	1/4W	
R30	1-215-445-00	METAL	10K	1%	1/4W	
R31	1-215-445-00	METAL	10K	1%	1/4W	
R32	1-214-800-11	METAL	2.2	1%	1/2W	
R33	1-214-800-11	METAL	2.2	1%	1/2W	
R34	1-215-429-00	METAL	2.2K	1%	1/4W	
R35	1-215-421-00	METAL	1K	1%	1/4W	
R36	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R37	1-249-433-11	CARBON	22K	5%	1/4W	
R38	1-249-417-11	CARBON	1K	5%	1/4W	
R39	1-249-441-11	CARBON	100K	5%	1/4W	
R40	1-249-429-11	CARBON	10K	5%	1/4W	
R41	1-249-429-11	CARBON	10K	5%	1/4W	
R42	1-249-429-11	CARBON	10K	5%	1/4W	
R43	1-249-429-11	CARBON	10K	5%	1/4W	
R44	1-249-429-11	CARBON	10K	5%	1/4W	
R45	1-249-417-11	CARBON	1K	5%	1/4W	
R46	1-249-433-11	CARBON	22K	5%	1/4W	
R47	1-249-433-11	CARBON	22K	5%	1/4W	
R48	1-249-429-11	CARBON	10K	5%	1/4W	
R49	1-249-429-11	CARBON	10K	5%	1/4W	
R50	1-249-437-11	CARBON	47K	5%	1/4W	
R51	1-249-417-11	CARBON	1K	5%	1/4W	
R52	1-249-417-11	CARBON	1K	5%	1/4W	
R55	1-215-883-11	METAL OXIDE	33	5%	2W	F
R56	1-249-433-11	CARBON	22K	5%	1/4W	
R57	1-249-429-11	CARBON	10K	5%	1/4W	
R58	1-249-417-11	CARBON	1K	5%	1/4W	
R59	1-216-449-11	METAL OXIDE	56	5%	2W	F
R60	1-216-449-11	METAL OXIDE	56	5%	2W	F
R61	1-215-463-00	METAL	56K	1%	1/4W	
R62	1-215-463-00	METAL	56K	1%	1/4W	
R63	1-215-463-00	METAL	56K	1%	1/4W	
R64	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R65	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R66	1-249-421-11	CARBON	2.2K	5%	1/4W	
R67	1-249-429-11	CARBON	10K	5%	1/4W	
R68	1-249-433-11	CARBON	22K	5%	1/4W	
R69	1-249-429-11	CARBON	10K	5%	1/4W	
R70	1-249-429-11	CARBON	10K	5%	1/4W	
R71	1-249-433-11	CARBON	22K	5%	1/4W	
R72	1-249-429-11	CARBON	10K	5%	1/4W	
R73	1-249-441-11	CARBON	100K	5%	1/4W	
R74	1-249-429-11	CARBON	10K	5%	1/4W	
R75	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R76	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R77	1-249-417-11	CARBON	1K	5%	1/4W	
R78	1-249-417-11	CARBON	1K	5%	1/4W	
R79	1-249-429-11	CARBON	10K	5%	1/4W	
R80	1-249-393-11	CARBON	10	5%	1/4W	
R81	1-249-393-11	CARBON	10	5%	1/4W	
R82	1-249-429-11	CARBON	10K	5%	1/4W	
R101	1-249-417-11	CARBON	1K	5%	1/4W	
R102	1-249-417-11	CARBON	1K	5%	1/4W	
R103	1-249-419-11	CARBON	1.5K	5%	1/4W	
R104	1-249-429-11	CARBON	10K	5%	1/4W	
R105	1-249-425-11	CARBON	4.7K	5%	1/4W	

DC

REF.NO.	PART NO.	DESCRIPTION				REMARK
R106	1-249-417-11	CARBON	1K	5%	1/4W	
R107	1-249-393-11	CARBON	10	5%	1/4W	F
R108	1-249-393-11	CARBON	10	5%	1/4W	F
R109	1-247-807-31	CARBON	100	5%	1/4W	
R110	1-249-393-11	CARBON	10	5%	1/4W	
R111	1-249-417-11	CARBON	1K	5%	1/4W	
R112	1-249-393-11	CARBON	10	5%	1/4W	F
R113	1-249-393-11	CARBON	10	5%	1/4W	F
R114	1-247-807-31	CARBON	100	5%	1/4W	
R115	1-249-393-11	CARBON	10	5%	1/4W	
R201	1-215-425-00	METAL	1.5K	1%	1/4W	
R202	1-215-445-00	METAL	10K	1%	1/4W	
R203	1-215-421-00	METAL	1K	1%	1/4W	
R204	1-215-417-00	METAL	680	1%	1/4W	
R205	1-215-439-00	METAL	5.6K	1%	1/4W	
R206	1-215-421-00	METAL	1K	1%	1/4W	
R207	1-215-421-00	METAL	1K	1%	1/4W	
R208	1-214-814-11	METAL	8.2	1%	1/2W	
R209	1-214-814-11	METAL	8.2	1%	1/2W	
R210	1-214-814-11	METAL	8.2	1%	1/2W	
R211	1-214-814-11	METAL	8.2	1%	1/2W	
R212	1-214-814-11	METAL	8.2	1%	1/2W	
R213	1-214-814-11	METAL	8.2	1%	1/2W	
R214	1-249-435-11	CARBON	33K	5%	1/4W	
R215	1-249-426-11	CARBON	5.6K	5%	1/4W	
R216	1-249-415-11	CARBON	680	5%	1/4W	F
R217	1-249-427-11	CARBON	6.8K	5%	1/4W	
R218	1-247-811-31	CARBON	150	5%	1/4W	
R219	1-249-403-11	CARBON	68	5%	1/4W	F
R221	1-216-369-00	METAL OXIDE	1	5%	2W	F
R222	1-216-369-00	METAL OXIDE	1	5%	2W	F
R223	1-215-885-00	METAL OXIDE	68	5%	2W	F
R224	1-215-425-00	METAL	1.5K	1%	1/4W	
R225	1-215-445-00	METAL	10K	1%	1/4W	
R226	1-215-421-00	METAL	1K	1%	1/4W	
R227	1-215-417-00	METAL	680	1%	1/4W	
R228	1-215-439-00	METAL	5.6K	1%	1/4W	
R229	1-215-421-00	METAL	1K	1%	1/4W	
R230	1-215-421-00	METAL	1K	1%	1/4W	
R231	1-214-814-11	METAL	8.2	1%	1/2W	
R232	1-214-814-11	METAL	8.2	1%	1/2W	
R233	1-214-814-11	METAL	8.2	1%	1/2W	
R234	1-214-814-11	METAL	8.2	1%	1/2W	
R235	1-214-814-11	METAL	8.2	1%	1/2W	
R236	1-214-814-11	METAL	8.2	1%	1/2W	
R237	1-249-435-11	CARBON	33K	5%	1/4W	
R238	1-249-426-11	CARBON	5.6K	5%	1/4W	
R239	1-249-415-11	CARBON	680	5%	1/4W	F
R240	1-249-427-11	CARBON	6.8K	5%	1/4W	
R241	1-247-811-31	CARBON	150	5%	1/4W	
R242	1-249-403-11	CARBON	68	5%	1/4W	F
R244	1-216-369-00	METAL OXIDE	1	5%	2W	F
R245	1-216-369-00	METAL OXIDE	1	5%	2W	F
R246	1-215-885-00	METAL OXIDE	68	5%	2W	F
R247	1-215-425-00	METAL	1.5K	1%	1/4W	
R248	1-215-445-00	METAL	10K	1%	1/4W	
R249	1-215-421-00	METAL	1K	1%	1/4W	
R250	1-215-417-00	METAL	680	1%	1/4W	
R251	1-215-439-00	METAL	5.6K	1%	1/4W	
R252	1-215-421-00	METAL	1K	1%	1/4W	
R253	1-215-421-00	METAL	1K	1%	1/4W	
R254	1-214-814-11	METAL	8.2	1%	1/2W	
R255	1-214-814-11	METAL	8.2	1%	1/2W	
R256	1-214-814-11	METAL	8.2	1%	1/2W	
R257	1-214-814-11	METAL	8.2	1%	1/2W	
R258	1-214-814-11	METAL	8.2	1%	1/2W	
R259	1-214-814-11	METAL	8.2	1%	1/2W	
R260	1-249-435-11	CARBON	33K	5%	1/4W	
R261	1-249-426-11	CARBON	5.6K	5%	1/4W	
R262	1-249-415-11	CARBON	680	5%	1/4W	F
R263	1-249-427-11	CARBON	6.8K	5%	1/4W	
R264	1-247-811-31	CARBON	150	5%	1/4W	
R265	1-249-403-11	CARBON	68	5%	1/4W	F
R267	1-216-369-00	METAL OXIDE	1	5%	2W	F
R268	1-216-369-00	METAL OXIDE	1	5%	2W	F
R269	1-215-885-00	METAL OXIDE	68	5%	2W	F
R270	1-247-807-31	CARBON	100	5%	1/4W	
R271	1-247-807-31	CARBON	100	5%	1/4W	
R272	1-247-807-31	CARBON	100	5%	1/4W	
R273	1-247-807-31	CARBON	100	5%	1/4W	
R274	1-247-807-31	CARBON	100	5%	1/4W	
R275	1-247-807-31	CARBON	100	5%	1/4W	
R301	1-215-427-00	METAL	1.8K	1%	1/4W	
R302	1-215-445-00	METAL	10K	1%	1/4W	
R303	1-215-421-00	METAL	1K	1%	1/4W	
R304	1-215-411-00	METAL	390	1%	1/4W	
R305	1-215-435-00	METAL	3.9K	1%	1/4W	
R306	1-215-421-00	METAL	1K	1%	1/4W	
R307	1-215-421-00	METAL	1K	1%	1/4W	
R308	1-214-808-11	METAL	4.7	1%	1/2W	
R309	1-214-808-11	METAL	4.7	1%	1/2W	
R310	1-214-808-11	METAL	4.7	1%	1/2W	
R311	1-214-808-11	METAL	4.7	1%	1/2W	
R312	1-214-808-11	METAL	4.7	1%	1/2W	
R313	1-214-808-11	METAL	4.7	1%	1/2W	
R314	1-249-435-11	CARBON	33K	5%	1/4W	
R315	1-249-426-11	CARBON	5.6K	5%	1/4W	
R316	1-249-415-11	CARBON	680	5%	1/4W	F
R317	1-249-427-11	CARBON	6.8K	5%	1/4W	
R318	1-247-811-31	CARBON	150	5%	1/4W	
R319	1-249-403-11	CARBON	68	5%	1/4W	F
R321	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R322	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R323	1-215-885-00	METAL OXIDE	68	5%	2W	F
R324	1-215-427-00	METAL	1.8K	1%	1/4W	
R325	1-215-445-00	METAL	10K	1%	1/4W	
R326	1-215-421-00	METAL	1K	1%	1/4W	
R327	1-215-411-00	METAL	390	1%	1/4W	
R328	1-215-435-00	METAL	3.9K	1%	1/4W	
R329	1-215-421-00	METAL	1K	1%	1/4W	
R330	1-215-421-00	METAL	1K	1%	1/4W	
R331	1-214-808-11	METAL	4.7	1%	1/2W	
R332	1-214-808-11	METAL	4.7	1%	1/2W	
R333	1-214-808-11	METAL	4.7	1%	1/2W	
R334	1-214-808-11	METAL	4.7	1%	1/2W	
R335	1-214-808-11	METAL	4.7	1%	1/2W	
R336	1-214-808-11	METAL	4.7	1%	1/2W	
R337	1-249-435-11	CARBON	33K	5%	1/4W	
R338	1-249-426-11	CARBON	5.6K	5%	1/4W	
R339	1-249-415-11	CARBON	680	5%	1/4W	F
R340	1-249-427-11	CARBON	6.8K	5%	1/4W	
R341	1-247-811-31	CARBON	150	5%	1/4W	
R342	1-249-403-11	CARBON	68	5%	1/4W	F
R344	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R345	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R346	1-215-885-00	METAL OXIDE	68	5%	2W	F
R347	1-215-427-00	METAL	1.8K	1%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R348	1-215-445-00	METAL	10K	1%	1/4W	
R349	1-215-421-00	METAL	1K	1%	1/4W	
R350	1-215-411-00	METAL	390	1%	1/4W	
R351	1-215-435-00	METAL	3.9K	1%	1/4W	
R352	1-215-421-00	METAL	1K	1%	1/4W	
R353	1-215-421-00	METAL	1K	1%	1/4W	
R354	1-214-808-11	METAL	4.7	1%	1/2W	
R355	1-214-808-11	METAL	4.7	1%	1/2W	
R356	1-214-808-11	METAL	4.7	1%	1/2W	
R357	1-214-808-11	METAL	4.7	1%	1/2W	
R358	1-214-808-11	METAL	4.7	1%	1/2W	
R359	1-214-808-11	METAL	4.7	1%	1/2W	
R360	1-249-435-11	CARBON	33K	5%	1/4W	
R361	1-249-426-11	CARBON	5.6K	5%	1/4W	
R362	1-249-415-11	CARBON	680	5%	1/4W	F
R363	1-249-427-11	CARBON	6.8K	5%	1/4W	
R364	1-249-404-00	CARBON	82	5%	1/4W	
R365	1-249-400-11	CARBON	39	5%	1/4W	F
R367	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R368	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R369	1-215-885-00	METAL OXIDE	68	5%	2W	F
R370	1-247-807-31	CARBON	100	5%	1/4W	
R371	1-247-807-31	CARBON	100	5%	1/4W	
R372	1-247-807-31	CARBON	100	5%	1/4W	
R373	1-247-807-31	CARBON	100	5%	1/4W	
R374	1-247-807-31	CARBON	100	5%	1/4W	
R375	1-247-807-31	CARBON	100	5%	1/4W	

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*A-1346-218-A E BOARD, COMPLETE
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4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1	1-126-899-11	ELECT	3900MF	20%	16V	
C2	1-126-899-11	ELECT	3900MF	20%	16V	
C3	1-126-899-11	ELECT	3900MF	20%	16V	
C4	1-102-824-00	CERAMIC	470PF	5%	50V	
C5	1-136-153-00	FILM	0.01MF	5%	50V	
C6	1-102-824-00	CERAMIC	470PF	5%	50V	
C7	1-102-824-00	CERAMIC	470PF	5%	50V	
C8	1-136-153-00	FILM	0.01MF	5%	50V	
C9	1-102-824-00	CERAMIC	470PF	5%	50V	
C10	1-136-153-00	FILM	0.01MF	5%	50V	
C11	1-102-824-00	CERAMIC	470PF	5%	50V	
C12	1-102-824-00	CERAMIC	470PF	5%	50V	
C13	1-130-908-00	FILM	0.0039MF	3%	1.6KV	
C14	1-130-908-00	FILM	0.0039MF	3%	1.6KV	
C15	1-124-585-11	ELECT	3300MF	20%	10V	
C16	1-124-585-11	ELECT	3300MF	20%	10V	
C17	1-123-935-00	ELECT	33MF	20%	160V	
C18	1-129-996-00	FILM	0.22MF	20%	630V	
C19	1-124-585-11	ELECT	3300MF	20%	10V	
C21	1-136-945-11	FILM	8.2MF	5%	200V	
C22	1-136-945-11	FILM	8.2MF	5%	200V	
C23	1-136-945-11	FILM	8.2MF	5%	200V	
C24	1-136-945-11	FILM	8.2MF	5%	200V	
C30	1-136-613-11	FILM	0.0068MF	3%	2KV	
C31	1-106-391-12	MYLAR	0.1MF	10%	200V	
C32	1-124-907-11	ELECT	10MF	20%	50V	
C35	1-102-244-00	CERAMIC	220PF	10%	500V	
C36	1-164-747-11	CERAMIC	330PF	15%	1.5KV	
C37	1-164-747-11	CERAMIC	330PF	15%	1.5KV	
C38	1-164-747-11	CERAMIC	330PF	15%	1.5KV	
C101	1-102-973-00	CERAMIC	100PF	5%	50V	
C102	1-136-159-00	FILM	0.033MF	5%	50V	
C104	1-136-165-00	FILM	0.1MF	5%	50V	
C105	1-136-165-00	FILM	0.1MF	5%	50V	
C106	1-126-101-11	ELECT	100MF	20%	16V	
C108	1-124-360-00	ELECT	1000MF	20%	16V	
C109	1-124-903-11	ELECT	1MF	20%	50V	
C110	1-126-101-11	ELECT	100MF	20%	16V	
C111	1-126-101-11	ELECT	100MF	20%	16V	
C112	1-126-101-11	ELECT	100MF	20%	16V	
C113	1-124-916-11	ELECT	22MF	20%	50V	
C114	1-124-499-11	ELECT	1MF	20%	50V	
C115	1-136-153-00	FILM	0.01MF	5%	50V	
C116	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C117	1-102-973-00	CERAMIC	100PF	5%	50V	
C118	1-136-165-00	FILM	0.1MF	5%	50V	
C119	1-126-101-11	ELECT	100MF	20%	16V	
C120	1-123-939-00	ELECT	10MF	20%	200V	
C121	1-136-159-00	FILM	0.033MF	5%	50V	
C122	1-123-024-21	ELECT	33MF		160V	
C123	1-123-024-21	ELECT	33MF		160V	
C124	1-125-499-11	ELECT(BLOCK)	220MF	20%	200V	
C125	1-136-153-00	FILM	0.01MF	5%	50V	
C126	1-130-471-00	MYLAR	0.001MF	5%	50V	
C127	1-124-360-00	ELECT	1000MF	20%	16V	
C128	1-123-939-00	ELECT	10MF	20%	200V	
C129	1-123-939-00	ELECT	10MF	20%	200V	
C130	1-124-120-11	ELECT	220MF	20%	16V	
C131	1-124-120-11	ELECT	220MF	20%	16V	
C132	1-123-024-21	ELECT	33MF		160V	
C133	1-124-499-11	ELECT	1MF	20%	50V	
C134	1-124-478-11	ELECT	100MF	20%	25V	
C135	1-124-478-11	ELECT	100MF	20%	25V	
C136	1-124-916-11	ELECT	22MF	20%	50V	
C137	1-102-973-00	CERAMIC	100PF	5%	50V	
C138	1-124-907-11	ELECT	10MF	20%	50V	
C139	1-124-360-00	ELECT	1000MF	20%	16V	
C140	1-136-169-00	FILM	0.22MF	5%	50V	
C141	1-130-471-00	MYLAR	0.001MF	5%	50V	
C142	1-125-499-11	ELECT(BLOCK)	220MF	20%	200V	
C143	1-102-824-00	CERAMIC	470PF	5%	50V	
C144	1-136-165-00	FILM	0.1MF	5%	50V	
C145	1-136-153-00	FILM	0.01MF	5%	50V	
C146	1-136-173-00	FILM	0.47MF	5%	50V	
C147	1-136-173-00	FILM	0.47MF	5%	50V	
C148	1-126-101-11	ELECT	100MF	20%	16V	
C149	1-124-907-11	ELECT	10MF	20%	50V	
C150	1-130-471-00	MYLAR	0.001MF	5%	50V	
C151	1-124-903-11	ELECT	1MF	20%	50V	
C152	1-136-165-00	FILM	0.1MF	5%	50V	
C153	1-104-792-51	ELECT	33MF	20%	16V	
C154	1-136-165-00	FILM	0.1MF	5%	50V	
C155	1-136-153-00	FILM	0.01MF	5%	50V	
C156	1-136-165-00	FILM	0.1MF	5%	50V	
C157	1-136-157-00	FILM	0.022MF	5%	50V	
C158	1-128-475-11	ELECT	10MF		160V	
C159	1-124-808-51	ELECT	10MF	20%	200V	
C160	1-136-111-00	FILM	1MF	5%	200V	
C161	1-124-903-11	ELECT	1MF	20%	50V	
C162	1-136-111-00	FILM	1MF	5%	200V	
C163	1-124-907-11	ELECT	10MF	20%	50V	

REF.NO.	PART NO.	DESCRIPTION			REMARK
C164	1-124-907-11	ELECT	10MF	20%	50V
C165	1-124-907-11	ELECT	10MF	20%	50V
C166	1-124-907-11	ELECT	10MF	20%	50V
C167	1-102-824-00	CERAMIC	470PF	5%	50V
C168	1-136-153-00	FILM	0.01MF	5%	50V
C169	1-124-768-11	ELECT	4.7MF	20%	50V
C170	1-104-792-51	ELECT	33MF	20%	16V
C171	1-136-165-00	FILM	0.1MF	5%	50V
C172	1-124-907-11	ELECT	10MF	20%	50V
C173	1-104-792-51	ELECT	33MF	20%	16V
C174	1-104-792-51	ELECT	33MF	20%	16V
C175	1-130-706-00	FILM	0.008MF	3%	1.6KV
C176	1-106-391-12	MYLAR	0.1MF	10%	200V
C177	1-124-907-11	ELECT	10MF	20%	50V
C178	1-101-004-00	CERAMIC	0.01MF		50V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1	8-719-970-89	DIODE DD50R	
D7	8-719-908-20	DIODE ERC88-009	
D8	8-719-908-20	DIODE ERC88-009	
D9	8-719-979-58	DIODE EGP10D	
D10	8-719-979-58	DIODE EGP10D	
D11	8-719-901-19	DIODE V11N	
D12	8-719-979-58	DIODE EGP10D	
D13	8-719-945-81	DIODE ERC06-15SA	
D14	8-719-900-95	DIODE V09G	
D15	8-719-933-02	DIODE ERD33-02	
D103	8-719-911-19	DIODE 1SS119	
D104	8-719-911-19	DIODE 1SS119	
D105	8-719-948-45	DIODE ERA22-08	
D106	8-719-948-45	DIODE ERA22-08	
D107	8-719-911-19	DIODE 1SS119	
D108	8-719-911-19	DIODE 1SS119	
D109	8-719-948-45	DIODE ERA22-08	
D110	8-719-911-19	DIODE 1SS119	
D111	8-719-911-19	DIODE 1SS119	
D112	8-719-900-26	DIODE ERD29-08J	
D113	8-719-911-19	DIODE 1SS119	
D114	8-719-110-53	DIODE RD20ESB2	
D115	8-719-110-53	DIODE RD20ESB2	
D116	8-719-920-67	DIODE ERC91-02	
D117	8-719-911-19	DIODE 1SS119	
D118	8-719-948-45	DIODE ERA22-08	
D119	8-719-911-19	DIODE 1SS119	
D120	8-719-911-19	DIODE 1SS119	
D121	8-719-911-19	DIODE 1SS119	
D122	8-719-911-19	DIODE 1SS119	
D123	8-719-911-19	DIODE 1SS119	
D124	8-719-948-45	DIODE ERA22-08	
D125	8-719-911-19	DIODE 1SS119	
D126	8-719-110-88	DIODE RD39ESB2	
D127	8-719-110-41	DIODE RD15ESB2	
D128	8-719-110-41	DIODE RD15ESB2	
D129	8-719-110-41	DIODE RD15ESB2	
D130	8-719-110-41	DIODE RD15ESB2	
D131	8-719-911-19	DIODE 1SS119	
D132	8-719-911-19	DIODE 1SS119	
D133	8-719-911-19	DIODE 1SS119	
D134	8-719-300-80	DIODE RU-1C	
D135	8-719-300-80	DIODE RU-1C	
D136	8-719-300-80	DIODE RU-1C	
D137	8-719-300-80	DIODE RU-1C	
D138	8-719-911-19	DIODE 1SS119	
D139	8-719-911-19	DIODE 1SS119	
D140	8-719-911-19	DIODE 1SS119	
D141	8-719-911-19	DIODE 1SS119	
D142	8-719-911-19	DIODE 1SS119	
D143	8-719-911-19	DIODE 1SS119	
D144	8-719-901-19	DIODE V11N	
D145	8-719-911-19	DIODE 1SS119	
D146	8-719-948-45	DIODE ERA22-08	
D149	8-719-911-19	DIODE 1SS119	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
E-1	*1-564-516-11	PLUG, CONNECTOR 13P	
E-2	*1-564-514-11	PLUG, CONNECTOR 11P	
E-3	*1-564-509-11	PLUG, CONNECTOR 6P	
E-4	*1-580-798-11	CONNECTOR PIN (DY) 6P	
E-5	*1-580-798-11	CONNECTOR PIN (DY) 6P	
E-6	*1-580-798-11	CONNECTOR PIN (DY) 6P	
E-7	1-508-742-00	PIN, CONNECTOR 3P	
E-8	*1-580-798-11	CONNECTOR PIN (DY) 6P	
E-9	*1-580-798-11	CONNECTOR PIN (DY) 6P	
E-10	*1-580-798-11	CONNECTOR PIN (DY) 6P	
E-11	1-508-742-00	PIN, CONNECTOR 3P	
E-12	*1-564-506-11	PLUG, CONNECTOR 3P	
E-13	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	

<FERRITE BEAD>

REF.NO.	PART NO.	DESCRIPTION	REMARK
FB1	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB2	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB3	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB4	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB5	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB6	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB7	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1	8-759-145-58	IC UPC4558C	
IC2	8-759-145-58	IC UPC4558C	
IC3	8-759-145-58	IC UPC4558C	
IC101	8-759-345-38	IC HD14538BP	
IC103	8-759-109-82	IC UPC814C	
IC104	8-759-145-58	IC UPC4558C	
IC105	8-759-145-58	IC UPC4558C	
IC106	8-759-145-58	IC UPC4558C	
IC107	8-759-014-95	IC MC1495L	
IC108	8-759-145-58	IC UPC4558C	
IC109	8-759-701-79	IC NJM7812FA	
IC110	8-759-929-65	IC LM7912CT	
IC111	8-759-100-75	IC UPC1394C	
IC112	8-759-145-58	IC UPC4558C	
IC113	8-759-103-93	IC UPC393C	
IC114	8-759-103-93	IC UPC393C	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L100	1-459-483-00	COIL (WITH CORE)		
L102	1-459-155-00	COIL (WITH CORE)	45UH	
L103	1-459-155-00	COIL (WITH CORE)	45UH	
L104	1-459-155-00	COIL (WITH CORE)	45UH	
L106	1-459-483-00	COIL (WITH CORE)		
L107	1-410-093-11	INDUCTOR	33MMH	
L108	1-410-093-11	INDUCTOR	33MMH	

REF.NO.	PART NO.	DESCRIPTION	REMARK
L109	1-459-104-00	COIL, DUST CORE	
L110	1-459-104-00	COIL, DUST CORE	
L111	1-410-093-11	INDUCTOR 33MMH	
L112	1-460-022-11	COIL, CHOKE 1.3MMH	
L113	1-410-680-31	INDUCTOR 330UH	
L114	1-410-686-11	INDUCTOR 1MMH	
L115	1-407-500-00	INDUCTOR 4.7MMH	

<VARIABLE COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
LV1	1-460-019-11	COIL, HORIZONTAL ADJUSTMENT	
LV2	1-460-019-11	COIL, HORIZONTAL ADJUSTMENT	
LV3	1-460-019-11	COIL, HORIZONTAL ADJUSTMENT	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1	8-729-142-69	TRANSISTOR 2SK817	
Q2	8-729-142-68	TRANSISTOR 2SJ143	
Q3	8-729-142-69	TRANSISTOR 2SK817	
Q4	8-729-142-68	TRANSISTOR 2SJ143	
Q5	8-729-142-69	TRANSISTOR 2SK817	
Q6	8-729-142-68	TRANSISTOR 2SJ143	
Q7	8-729-820-71	TRANSISTOR 2SC3998CA	
Q21	8-729-802-07	TRANSISTOR 2SD1403-CA	
Q22	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q101	8-729-105-74	TRANSISTOR 2SK523-M1	
Q102	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q104	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q106	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q107	8-729-140-96	TRANSISTOR 2SD774-34	
Q108	8-729-140-97	TRANSISTOR 2SB734-34	
Q109	8-729-105-74	TRANSISTOR 2SK523-M1	
Q110	8-729-143-42	TRANSISTOR 2SK929	
Q111	8-729-143-42	TRANSISTOR 2SK929	
Q112	8-729-142-68	TRANSISTOR 2SJ143	
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q115	8-729-926-42	TRANSISTOR XDC114ES	
Q116	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q117	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q118	8-729-105-74	TRANSISTOR 2SK523-M1	
Q119	8-729-926-42	TRANSISTOR XDC114ES	
Q120	8-729-802-71	TRANSISTOR 2SA1407-D	
Q121	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q122	8-729-926-42	TRANSISTOR XDC114ES	
Q127	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q128	8-729-926-42	TRANSISTOR XDC114ES	
Q129	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q130	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q131	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q132	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q133	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q134	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q135	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q136	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q137	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q138	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q139	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q140	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q141	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q142	8-729-143-42	TRANSISTOR 2SK929	
Q143	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q144	8-729-905-86	TRANSISTOR 2SC4054N	
Q145	8-729-402-03	TRANSISTOR 2SK755	
Q146	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q147	8-729-905-86	TRANSISTOR 2SC4054N	
Q148	8-729-802-71	TRANSISTOR 2SA1407-D	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R2	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R3	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R4	1-249-417-11	CARBON	1K	5%	1/4W	
R5	1-215-445-00	METAL	10K	1%	1/4W	
R7	1-215-445-00	METAL	10K	1%	1/4W	
R8	1-215-445-00	METAL	10K	1%	1/4W	
R9	1-215-445-00	METAL	10K	1%	1/4W	
R10	1-249-417-11	CARBON	1K	5%	1/4W	
R11	1-214-824-11	METAL	22	1%	1/2W	
R12	1-214-824-11	METAL	22	1%	1/2W	
R13	1-214-824-11	METAL	22	1%	1/2W	
R14	1-249-417-11	CARBON	1K	5%	1/4W	
R15	1-215-445-00	METAL	10K	1%	1/4W	
R17	1-215-445-00	METAL	10K	1%	1/4W	
R18	1-215-445-00	METAL	10K	1%	1/4W	
R19	1-215-445-00	METAL	10K	1%	1/4W	
R20	1-249-417-11	CARBON	1K	5%	1/4W	
R21	1-214-832-00	METAL	47	1%	1/2W	
R22	1-214-832-00	METAL	47	1%	1/2W	
R23	1-214-832-00	METAL	47	1%	1/2W	
R24	1-249-417-11	CARBON	1K	5%	1/4W	
R25	1-215-445-00	METAL	10K	1%	1/4W	
R27	1-215-445-00	METAL	10K	1%	1/4W	
R28	1-215-445-00	METAL	10K	1%	1/4W	
R29	1-215-445-00	METAL	10K	1%	1/4W	
R30	1-249-417-11	CARBON	1K	5%	1/4W	
R31	1-214-824-11	METAL	22	1%	1/2W	
R32	1-214-824-11	METAL	22	1%	1/2W	
R33	1-214-824-11	METAL	22	1%	1/2W	
R34	1-214-824-11	METAL	22	1%	1/2W	
R35	1-214-824-11	METAL	22	1%	1/2W	
R36	1-214-824-11	METAL	22	1%	1/2W	
R37	1-214-832-00	METAL	47	1%	1/2W	
R38	1-214-832-00	METAL	47	1%	1/2W	
R39	1-214-832-00	METAL	47	1%	1/2W	
R40	1-214-824-11	METAL	22	1%	1/2W	
R41	1-214-824-11	METAL	22	1%	1/2W	
R42	1-214-824-11	METAL	22	1%	1/2W	
R51	1-249-479-11	CARBON	2.7	5%	1/2W	F
R52	1-249-479-11	CARBON	2.7	5%	1/2W	F
R53	1-249-479-11	CARBON	2.7	5%	1/2W	F
R54	1-215-857-11	METAL OXIDE	10	5%	1W	F
R55	1-215-924-00	METAL OXIDE	15K	5%	3W	F
R56	1-247-716-11	CARBON	1.8K	5%	1/4W	F
R57	1-247-807-31	CARBON	100	5%	1/4W	
R58	1-247-807-31	CARBON	100	5%	1/4W	
R59	1-247-807-31	CARBON	100	5%	1/4W	
R60	1-247-807-31	CARBON	100	5%	1/4W	
R61	1-247-807-31	CARBON	100	5%	1/4W	
R62	1-247-807-31	CARBON	100	5%	1/4W	
R63	1-247-712-11	CARBON	820	5%	1/4W	F
R64	1-247-712-11	CARBON	820	5%	1/4W	F
R65	1-247-712-11	CARBON	820	5%	1/4W	F
R66	1-215-905-11	METAL OXIDE	10	5%	3W	F
R67	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R68	1-216-397-11	METAL OXIDE	4.7	5%	3W	F

E

REF.NO.	PART NO.	DESCRIPTION				REMARK
R69	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R101	1-215-457-00	METAL	33K	1%	1/4W	
R102	1-249-429-11	CARBON	10K	5%	1/4W	
R103	1-249-429-11	CARBON	10K	5%	1/4W	
R109	1-249-429-11	CARBON	10K	5%	1/4W	
R110	1-249-417-11	CARBON	1K	5%	1/4W	
R111	1-249-429-11	CARBON	10K	5%	1/4W	
R112	1-249-425-11	CARBON	4.7K	5%	1/4W	
R113	1-247-807-31	CARBON	100	5%	1/4W	
R114	1-249-417-11	CARBON	1K	5%	1/4W	
R115	1-215-445-00	METAL	10K	1%	1/4W	
R116	1-215-445-00	METAL	10K	1%	1/4W	
R117	1-215-433-00	METAL	3.3K	1%	1/4W	
R118	1-249-423-11	CARBON	3.3K	5%	1/4W	
R119	1-215-457-00	METAL	33K	1%	1/4W	
R120	1-215-457-00	METAL	33K	1%	1/4W	
R121	1-215-445-00	METAL	10K	1%	1/4W	
R122	1-249-425-11	CARBON	4.7K	5%	1/4W	
R123	1-215-445-00	METAL	10K	1%	1/4W	
R124	1-215-445-00	METAL	10K	1%	1/4W	
R125	1-215-457-00	METAL	33K	1%	1/4W	
R126	1-215-457-00	METAL	33K	1%	1/4W	
R127	1-215-447-00	METAL	12K	1%	1/4W	
R128	1-215-445-00	METAL	10K	1%	1/4W	
R129	1-215-447-00	METAL	12K	1%	1/4W	
R130	1-249-425-11	CARBON	4.7K	5%	1/4W	
R131	1-215-445-00	METAL	10K	1%	1/4W	
R132	1-215-449-00	METAL	15K	1%	1/4W	
R133	1-249-425-11	CARBON	4.7K	5%	1/4W	
R134	1-215-453-00	METAL	22K	1%	1/4W	
R135	1-249-429-11	CARBON	10K	5%	1/4W	
R136	1-249-423-11	CARBON	3.3K	5%	1/4W	
R137	1-249-423-11	CARBON	3.3K	5%	1/4W	
R138	1-249-423-11	CARBON	3.3K	5%	1/4W	
R139	1-249-425-11	CARBON	4.7K	5%	1/4W	
R140	1-249-417-11	CARBON	1K	5%	1/4W	
R141	1-249-421-11	CARBON	2.2K	5%	1/4W	
R142	1-249-421-11	CARBON	2.2K	5%	1/4W	
R143	1-249-420-11	CARBON	1.8K	5%	1/4W	
R144	1-249-421-11	CARBON	2.2K	5%	1/4W	
R145	1-249-423-11	CARBON	3.3K	5%	1/4W	
R146	1-249-435-11	CARBON	33K	5%	1/4W	
R147	1-249-421-11	CARBON	2.2K	5%	1/4W	
R148	1-249-440-11	CARBON	82K	5%	1/4W	
R149	1-249-417-11	CARBON	1K	5%	1/4W	
R150	1-215-461-00	METAL	47K	1%	1/4W	
R151	1-249-425-11	CARBON	4.7K	5%	1/4W	
R152	1-215-445-00	METAL	10K	1%	1/4W	
R153	1-215-445-00	METAL	10K	1%	1/4W	
R154	1-247-895-00	CARBON	470K	5%	1/4W	
R155	1-249-420-11	CARBON	1.8K	5%	1/4W	
R156	1-249-437-11	CARBON	47K	5%	1/4W	
R157	1-249-413-11	CARBON	470	5%	1/4W	
R158	1-247-807-31	CARBON	100	5%	1/4W	
R159	1-247-807-31	CARBON	100	5%	1/4W	
R160	1-249-417-11	CARBON	1K	5%	1/4W	
R161	1-215-467-00	METAL	82K	1%	1/4W	
R162	1-215-866-11	METAL OXIDE	330	5%	1W	F
R163	1-215-461-00	METAL	47K	1%	1/4W	
R164	1-249-421-11	CARBON	2.2K	5%	1/4W	
R165	1-215-445-00	METAL	10K	1%	1/4W	
R166	1-249-429-11	CARBON	10K	5%	1/4W	
R167	1-249-437-11	CARBON	47K	5%	1/4W	
R168	1-249-429-11	CARBON	10K	5%	1/4W	
R169	1-247-725-11	CARBON	10K	5%	1/4W	F
R170	1-249-425-11	CARBON	4.7K	5%	1/4W	
R171	1-249-417-11	CARBON	1K	5%	1/4W	
R172	1-249-417-11	CARBON	1K	5%	1/4W	
R173	1-216-389-11	METAL OXIDE	1	5%	3W	F
R174	1-216-388-11	METAL OXIDE	0.82	5%	3W	F
R176	1-247-713-11	CARBON	1K	5%	1/4W	F
R177	1-215-445-00	METAL	10K	1%	1/4W	
R178	1-249-417-11	CARBON	1K	5%	1/4W	
R179	1-249-429-11	CARBON	10K	5%	1/4W	
R180	1-215-433-00	METAL	3.3K	1%	1/4W	
R181	1-249-441-11	CARBON	100K	5%	1/4W	
R182	1-249-421-11	CARBON	2.2K	5%	1/4W	
R183	1-247-807-31	CARBON	100	5%	1/4W	
R184	1-249-425-11	CARBON	4.7K	5%	1/4W	
R185	1-249-417-11	CARBON	1K	5%	1/4W	
R186	1-249-437-11	CARBON	47K	5%	1/4W	
R187	1-215-461-00	METAL	47K	1%	1/4W	
R188	1-249-431-11	CARBON	15K	5%	1/4W	
R189	1-249-429-11	CARBON	10K	5%	1/4W	
R190	1-215-883-11	METAL OXIDE	33	5%	2W	F
R191	1-249-423-11	CARBON	3.3K	5%	1/4W	
R192	1-249-433-11	CARBON	22K	5%	1/4W	
R193	1-247-903-00	CARBON	1M	5%	1/4W	
R194	1-249-423-11	CARBON	3.3K	5%	1/4W	
R195	1-249-423-11	CARBON	3.3K	5%	1/4W	
R196	1-247-883-00	CARBON	150K	5%	1/4W	
R197	1-247-807-31	CARBON	100	5%	1/4W	
R198	1-215-447-00	METAL	12K	1%	1/4W	
R199	1-249-423-11	CARBON	3.3K	5%	1/4W	
R201	1-249-417-11	CARBON	1K	5%	1/4W	
R202	1-249-417-11	CARBON	1K	5%	1/4W	
R203	1-249-453-11	CARBON	3.3	5%	1/4W	F
R204	1-249-429-11	CARBON	10K	5%	1/4W	
R205	1-249-427-11	CARBON	6.8K	5%	1/4W	
R206	1-249-429-11	CARBON	10K	5%	1/4W	
R207	1-249-441-11	CARBON	100K	5%	1/4W	
R208	1-216-341-11	METAL OXIDE	0.22	5%	1W	F
R209	1-249-417-11	CARBON	1K	5%	1/4W	
R210	1-215-451-00	METAL	18K	1%	1/4W	
R212	1-249-431-11	CARBON	15K	5%	1/4W	
R213	1-249-429-11	CARBON	10K	5%	1/4W	
R214	1-215-883-11	METAL OXIDE	33	5%	2W	F
R215	1-249-417-11	CARBON	1K	5%	1/4W	
R216	1-249-423-11	CARBON	3.3K	5%	1/4W	
R217	1-249-399-11	CARBON	33	5%	1/4W	
R218	1-249-417-11	CARBON	1K	5%	1/4W	F
R219	1-215-445-00	METAL	10K	1%	1/4W	
R220	1-215-445-00	METAL	10K	1%	1/4W	
R221	1-249-476-11	CARBON	1.5	5%	1/2W	F
R222	1-249-441-11	CARBON	100K	5%	1/4W	
R223	1-249-429-11	CARBON	10K	5%	1/4W	
R224	1-249-429-11	CARBON	10K	5%	1/4W	
R225	1-249-421-11	CARBON	2.2K	5%	1/4W	
R226	1-215-445-00	METAL	10K	1%	1/4W	
R227	1-249-429-11	CARBON	10K	5%	1/4W	
R228	1-249-429-11	CARBON	10K	5%	1/4W	
R229	1-249-429-11	CARBON	10K	5%	1/4W	
R230	1-249-443-11	CARBON	0.47	5%	1/4W	F
R231	1-249-443-11	CARBON	0.47	5%	1/4W	F
R232	1-249-437-11	CARBON	47K	5%	1/4W	
R233	1-249-417-11	CARBON	1K	5%	1/4W	
R234	1-249-417-11	CARBON	1K	5%	1/4W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R235	1-249-437-11	CARBON	47K	5%	1/4W	
R236	1-249-437-11	CARBON	47K	5%	1/4W	
R237	1-249-441-11	CARBON	100K	5%	1/4W	
R238	1-249-399-11	CARBON	33	5%	1/4W	
R239	1-249-423-11	CARBON	3.3K	5%	1/4W	
R240	1-249-441-11	CARBON	100K	5%	1/4W	
R241	1-249-437-11	CARBON	47K	5%	1/4W	
R242	1-215-461-00	METAL	47K	1%	1/4W	
R243	1-215-469-00	METAL	100K	1%	1/4W	
R244	1-249-423-11	CARBON	3.3K	5%	1/4W	
R245	1-216-441-00	METAL OXIDE	27K	5%	1W	F
R246	1-215-435-00	METAL	3.9K	1%	1/4W	
R247	1-249-421-11	CARBON	2.2K	5%	1/4W	
R248	1-249-425-11	CARBON	4.7K	5%	1/4W	
R249	1-215-421-00	METAL	1K	1%	1/4W	
R250	1-215-445-00	METAL	10K	1%	1/4W	
R251	1-247-887-00	CARBON	220K	5%	1/4W	
R252	1-249-429-11	CARBON	10K	5%	1/4W	
R254	1-247-807-31	CARBON	100	5%	1/4W	
R255	1-249-417-11	CARBON	1K	5%	1/4W	
R256	1-249-441-11	CARBON	100K	5%	1/4W	
R257	1-249-437-11	CARBON	47K	5%	1/4W	
R258	1-215-435-00	METAL	3.9K	1%	1/4W	
R259	1-215-439-00	METAL	5.6K	1%	1/4W	
R260	1-215-445-00	METAL	10K	1%	1/4W	
R261	1-249-429-11	CARBON	10K	5%	1/4W	
R262	1-247-807-31	CARBON	100	5%	1/4W	
R263	1-215-878-00	METAL OXIDE	33K	5%	1W	F
R264	1-249-429-11	CARBON	10K	5%	1/4W	
R265	1-247-807-31	CARBON	100	5%	1/4W	
R266	1-249-441-11	CARBON	100K	5%	1/4W	
R267	1-215-379-00	METAL	18	1%	1/4W	
R268	1-215-379-00	METAL	18	1%	1/4W	
R269	1-215-421-00	METAL	1K	1%	1/4W	
R270	1-215-421-00	METAL	1K	1%	1/4W	
R271	1-215-924-00	METAL OXIDE	15K	5%	3W	F
R272	1-249-453-11	CARBON	3.3	5%	1/4W	F
R273	1-249-429-11	CARBON	10K	5%	1/4W	
R274	1-249-429-11	CARBON	10K	5%	1/4W	
R275	1-249-429-11	CARBON	10K	5%	1/4W	
R276	1-249-429-11	CARBON	10K	5%	1/4W	
R277	1-249-431-11	CARBON	15K	5%	1/4W	
R278	1-249-429-11	CARBON	10K	5%	1/4W	
R279	1-249-417-11	CARBON	1K	5%	1/4W	
R280	1-215-883-11	METAL OXIDE	33	5%	2W	F
R281	1-249-451-11	CARBON	2.2	5%	1/4W	F
R282	1-249-451-11	CARBON	2.2	5%	1/4W	F
R283	1-249-425-11	CARBON	4.7K	5%	1/4W	
R284	1-215-467-00	METAL	82K	1%	1/4W	
R285	1-215-445-00	METAL	10K	1%	1/4W	
R286	1-215-911-11	METAL OXIDE	100	5%	3W	F
R287	1-202-727-00	SOLID	4.7M	10%	1/2W	
R288	1-202-727-00	SOLID	4.7M	10%	1/2W	
R289	1-202-727-00	SOLID	4.7M	10%	1/2W	
R290	1-202-727-00	SOLID	4.7M	10%	1/2W	
R296	1-249-429-11	CARBON	10K	5%	1/4W	

<VARIABLE RESISTOR>

RV104	1-228-997-00	RES, ADJ, CARBON 100K	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T2	⚠ 1-439-479-11	TRANSFORMER, LINE OUTPUT	
T3	1-437-078-00	TRANSFORMER, HORIZONTAL DRIVE	
T102	⚠ 1-439-480-11	TRANSFORMER, HORIZONTAL OUTPUT	
T103	1-437-144-11	TRANSFORMER, FERRITE (HDT)	
T104	1-437-144-11	TRANSFORMER, FERRITE (HDT)	
T105	1-424-290-11	TRANSFORMER, DRIVE	

****

*A-1373-237-A U BOARD, COMPLETE
****

*1-634-039-11 PC BOARD, U

<JACK>

J001	1-563-302-11	JACK BLOCK, PIN 2P

<SWITCH>

SW001	1-572-082-11	SWITCH, SLIDE

<CONNECTOR>

U-1	*1-564-521-11	PLUG, CONNECTOR 6P

****

*A-1380-316-A KB BOARD, COMPLETE
****

*1-636-288-11 PC BOARD, KB

<DIODE>

D18	8-719-911-19	DIODE 1SS119
D19	8-719-911-19	DIODE 1SS119
D20	8-719-911-19	DIODE 1SS119
D21	8-719-911-19	DIODE 1SS119
D22	8-719-911-19	DIODE 1SS119
D23	8-719-911-19	DIODE 1SS119
D015	8-719-911-19	DIODE 1SS119
D016	8-719-911-19	DIODE 1SS119
D017	8-719-911-19	DIODE 1SS119

<CONNECTOR>

KB-1	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P
KB-2	*1-564-506-11	PLUG, CONNECTOR 3P

<TRANSISTOR>

Q020	8-729-900-63	TRANSISTOR DTA124ES
Q021	8-729-900-63	TRANSISTOR DTA124ES
Q022	8-729-900-63	TRANSISTOR DTA124ES

<RESISTOR>

R95	1-249-423-11	CARBON	3.3K	5%	1/4W
R96	1-249-423-11	CARBON	3.3K	5%	1/4W
R97	1-249-423-11	CARBON	3.3K	5%	1/4W
R085	1-249-437-11	CARBON	47K	5%	1/4W
R086	1-249-429-11	CARBON	10K	5%	1/4W
R087	1-247-807-31	CARBON	100	5%	1/4W
R088	1-249-425-11	CARBON	4.7K	5%	1/4W
R089	1-249-437-11	CARBON	47K	5%	1/4W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R090	1-249-429-11	CARBON	10K	5%	1/4W	
R091	1-247-807-31	CARBON	100	5%	1/4W	
R092	1-249-437-11	CARBON	47K	5%	1/4W	
R093	1-249-429-11	CARBON	10K	5%	1/4W	
R094	1-247-807-31	CARBON	100	5%	1/4W	

****

*A-1380-466-A K BOARD, COMPLETE
****

*4-034-120-01 HOLDER (A)
4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C201	1-124-907-11	ELECT	10MF	20%	50V	
C202	1-124-907-11	ELECT	10MF	20%	50V	
C203	1-124-907-11	ELECT	10MF	20%	50V	
C204	1-101-004-00	CERAMIC	0.01MF		50V	
C205	1-101-004-00	CERAMIC	0.01MF		50V	
C206	1-124-907-11	ELECT	10MF	20%	50V	
C207	1-124-794-51	ELECT	4.7MF	20%	100V	
C208	1-102-050-00	CERAMIC	0.01MF		500V	
C209	1-124-903-11	ELECT	1MF	20%	50V	
C210	1-136-173-00	FILM	0.47MF	5%	50V	
C211	1-124-910-11	ELECT	47MF	20%	50V	
C212	1-124-910-11	ELECT	47MF	20%	50V	
C213	1-124-907-11	ELECT	10MF	20%	50V	
C214	1-124-907-11	ELECT	10MF	20%	50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN291	1-564-511-11	PLUG, CONNECTOR 8P	
CN292	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN293	*1-564-505-11	PLUG, CONNECTOR 2P	
CN294	*1-564-506-11	PLUG, CONNECTOR 3P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D201	8-719-110-17	DIODE RD10ESB2	
D202	8-719-110-17	DIODE RD10ESB2	
D203	8-719-948-45	DIODE ERA22-08	
D204	8-719-911-19	DIODE 1SS119	
D205	8-719-911-19	DIODE 1SS119	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC201	8-759-109-82	IC UPC814C	
IC202	8-759-109-82	IC UPC814C	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L201	1-459-155-00	COIL (WITH CORE) 45UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q201	8-729-112-61	TRANSISTOR 2SA1441-L	
Q202	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q203	8-729-143-42	TRANSISTOR 2SK929	
Q204	8-729-143-42	TRANSISTOR 2SK929	
Q205	8-729-142-74	TRANSISTOR 2SD1977	
Q206	8-729-142-70	TRANSISTOR 2SB1315	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R201	1-215-429-00	METAL	2.2K	1%	1/4W	
R202	1-215-429-00	METAL	2.2K	1%	1/4W	
R203	1-215-461-00	METAL	47K	1%	1/4W	
R204	1-215-429-00	METAL	2.2K	1%	1/4W	
R205	1-249-417-11	CARBON	1K	5%	1/4W	
R206	1-215-445-00	METAL	10K	1%	1/4W	
R207	1-249-425-11	CARBON	4.7K	5%	1/4W	
R208	1-215-453-00	METAL	22K	1%	1/4W	
R209	1-215-453-00	METAL	22K	1%	1/4W	
R210	1-202-818-00	SOLID	1K	20%	1/2W	
R211	1-202-818-00	SOLID	1K	20%	1/2W	
R212	1-249-429-11	CARBON	10K	5%	1/4W	
R213	1-249-441-11	CARBON	100K	5%	1/4W	
R214	1-215-491-00	METAL	820K	1%	1/4W	
R215	1-215-902-11	METAL OXIDE	47K	5%	2W	F
R216	1-215-409-00	METAL	330	1%	1/4W	
R217	1-249-425-11	CARBON	4.7K	5%	1/4W	
R218	1-249-429-11	CARBON	10K	5%	1/4W	
R219	1-247-713-11	CARBON	1K	5%	1/4W	F
R220	1-247-700-11	CARBON	100	5%	1/4W	F
R221	1-202-842-11	SOLID	220K	20%	1/2W	
R222	1-247-713-11	CARBON	1K	5%	1/4W	F
R223	1-215-904-11	METAL OXIDE	100K	5%	2W	F
R224	1-202-842-11	SOLID	220K	20%	1/2W	
R225	1-247-713-11	CARBON	1K	5%	1/4W	F
R226	1-249-389-11	CARBON	4.7	5%	1/4W	F
R227	1-249-451-11	CARBON	2.2	5%	1/4W	F
R228	1-215-425-00	METAL	1.5K	1%	1/4W	
R229	1-249-437-11	CARBON	47K	5%	1/4W	
R230	1-215-407-00	METAL	270	1%	1/4W	
R231	1-215-435-00	METAL	3.9K	1%	1/4W	
R232	1-247-700-11	CARBON	100	5%	1/4W	F
R233	1-247-700-11	CARBON	100	5%	1/4W	F
R234	1-249-447-11	CARBON	1	5%	1/4W	F
R235	1-249-447-11	CARBON	1	5%	1/4W	F
R236	1-247-713-11	CARBON	1K	5%	1/4W	F
R237	1-249-433-11	CARBON	22K	5%	1/4W	
R238	1-249-451-11	CARBON	2.2	5%	1/4W	F

<SPARK GAP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
SG201	1-519-063-99	DISCHARGING GAP	
SG202	1-519-063-99	DISCHARGING GAP	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T201	1-424-287-11	TRANSFORMER, DYNAMIC FOCUS	

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*A-1380-473-A KA BOARD, COMPLETE
****

*2-261-207-00 HEAT SINK, AF OUT

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C20	1-136-153-00	FILM	0.01MF	5%	50V	
C22	1-136-153-00	FILM	0.01MF	5%	50V	
C31	1-136-165-00	FILM	0.1MF	5%	50V	
C32	1-136-165-00	FILM	0.1MF	5%	50V	
C59	1-136-153-00	FILM	0.01MF	5%	50V	
C60	1-136-153-00	FILM	0.01MF	5%	50V	
C61	1-124-927-11	ELECT	4.7MF	20%	50V	
C62	1-124-122-11	ELECT	100MF	20%	50V	

REF.NO.	PART NO.	DESCRIPTION			REMARK
C001	1-101-004-00	CERAMIC	0.01MF		50V
C002	1-124-907-11	ELECT	10MF	20%	50V
C003	1-126-101-11	ELECT	100MF	20%	16V
C004	1-101-004-00	CERAMIC	0.01MF		50V
C005	1-124-907-11	ELECT	10MF	20%	50V
C006	1-126-101-11	ELECT	100MF	20%	16V
C007	1-126-962-11	ELECT	3.3MF	20%	50V
C008	1-124-903-11	ELECT	1MF	20%	50V
C009	1-124-916-11	ELECT	22MF	20%	50V
C011	1-126-101-11	ELECT	100MF	20%	16V
C012	1-124-927-11	ELECT	4.7MF	20%	50V
C013	1-124-916-11	ELECT	22MF	20%	50V
C015	1-101-004-00	CERAMIC	0.01MF		50V
C016	1-124-927-11	ELECT	4.7MF	20%	50V
C017	1-126-101-11	ELECT	100MF	20%	16V
C018	1-101-004-00	CERAMIC	0.01MF		50V
C019	1-102-824-00	CERAMIC	470PF	10%	50V
C021	1-102-824-00	CERAMIC	470PF	10%	50V
C025	1-124-907-11	ELECT	10MF	20%	50V
C027	1-124-907-11	ELECT	10MF	20%	50V
C028	1-124-122-11	ELECT	100MF	20%	50V
C030	1-124-122-11	ELECT	100MF	20%	50V
C033	1-124-122-11	ELECT	100MF	20%	50V
C034	1-124-122-11	ELECT	100MF	20%	50V
C035	1-101-004-00	CERAMIC	0.01MF		50V
C036	1-101-004-00	CERAMIC	0.01MF		50V
C037	1-101-004-00	CERAMIC	0.01MF		50V
C038	1-102-978-00	CERAMIC	220PF	10%	50V
C039	1-102-978-00	CERAMIC	220PF	10%	50V
C049	1-124-477-11	ELECT	47MF	20%	16V
C050	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C051	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C053	1-126-101-11	ELECT	100MF	20%	16V
C054	1-126-101-11	ELECT	100MF	20%	16V
C055	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C056	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C057	1-124-907-11	ELECT	10MF	20%	50V

<DIODE>

D001	8-719-900-95	DIODE V09G
D002	8-719-900-95	DIODE V09G
D003	8-719-109-90	DIODE RD5.6ESB3
D005	8-719-110-36	DIODE RD13ESB2
D007	8-719-110-36	DIODE RD13ESB2
D009	8-719-911-19	DIODE 1SS119
D010	8-719-911-19	DIODE 1SS119
D011	8-719-911-19	DIODE 1SS119

<IC>

IC001	8-759-604-39	IC M5F78M12L
IC002	8-759-929-65	IC LM7912CT
IC003	8-749-941-40	IC STK4141V
IC004	8-759-233-33	IC TC74HC541AP
IC005	8-759-044-95	IC MC14495P1
IC006	8-759-044-95	IC MC14495P1
IC007	8-719-901-68	DIODE GL-6R202

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
KA-1	*1-564-507-11	PLUG, CONNECTOR 4P	
KA-2	*1-564-506-11	PLUG, CONNECTOR 3P	
KA-3	*1-564-507-11	PLUG, CONNECTOR 4P	
KA-5	*1-564-509-11	PLUG, CONNECTOR 6P	
KA-6	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
KA-7	1-564-506-11	PLUG, CONNECTOR 3P	
KA-8	*1-564-506-11	PLUG, CONNECTOR 3P	
KA-9	*1-564-514-11	PLUG, CONNECTOR 11P	

<COIL>

L001	1-410-671-31	INDUCTOR	47UH
L002	1-410-671-31	INDUCTOR	47UH
L003	1-410-671-31	INDUCTOR	47UH
L004	1-410-464-11	INDUCTOR	3.3UH
L005	1-410-464-11	INDUCTOR	3.3UH

<TRANSISTOR>

Q001	8-729-900-36	TRANSISTOR DTC124ES
Q002	8-729-900-36	TRANSISTOR DTC124ES
Q003	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q004	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q007	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q008	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q011	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q013	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q014	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q015	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q016	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q017	8-729-900-36	TRANSISTOR DTC124ES

<RESISTOR>

					REMARK
R001	1-247-807-31	CARBON	100	5%	1/4W
R002	1-249-441-11	CARBON	100K	5%	1/4W
R003	1-247-807-31	CARBON	100	5%	1/4W
R004	1-215-463-00	METAL	56K	1%	1/4W
R005	1-215-461-00	METAL	47K	1%	1/4W
R006	1-249-429-11	CARBON	10K	5%	1/4W
R007	1-249-430-11	CARBON	12K	5%	1/4W
R008	1-247-807-31	CARBON	100	5%	1/4W
R009	1-249-417-11	CARBON	1K	5%	1/4W
R012	1-249-482-11	CARBON	4.7	5%	1/2W
R013	1-249-482-11	CARBON	4.7	5%	1/2W
R015	1-249-417-11	CARBON	1K	5%	1/4W
R016	1-249-417-11	CARBON	1K	5%	1/4W
R017	1-247-807-31	CARBON	100	5%	1/4W
R018	1-249-425-11	CARBON	4.7K	5%	1/4W
R019	1-249-420-11	CARBON	1.8K	5%	1/4W
R020	1-249-427-11	CARBON	6.8K	5%	1/4W
R021	1-249-429-11	CARBON	10K	5%	1/4W
R022	1-249-430-11	CARBON	12K	5%	1/4W
R023	1-247-807-31	CARBON	100	5%	1/4W
R024	1-249-417-11	CARBON	1K	5%	1/4W
R030	1-249-417-11	CARBON	1K	5%	1/4W
R031	1-249-417-11	CARBON	1K	5%	1/4W
R032	1-247-807-31	CARBON	100	5%	1/4W
R033	1-249-425-11	CARBON	4.7K	5%	1/4W
R034	1-249-420-11	CARBON	1.8K	5%	1/4W
R035	1-249-427-11	CARBON	6.8K	5%	1/4W
R040	1-249-429-11	CARBON	10K	5%	1/4W
R041	1-249-425-11	CARBON	4.7K	5%	1/4W
R042	1-249-427-11	CARBON	6.8K	5%	1/4W
R043	1-249-417-11	CARBON	1K	5%	1/4W
R044	1-249-438-11	CARBON	56K	5%	1/4W
R045	1-249-417-11	CARBON	1K	5%	1/4W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R046	1-249-438-11	CARBON	56K	5%	1/4W	
R047	1-249-415-11	CARBON	680	5%	1/4W	
R048	1-249-438-11	CARBON	56K	5%	1/4W	
R049	1-249-421-11	CARBON	2.2K	5%	1/4W	
R050	1-215-871-11	METAL OXIDE	2.2K	5%	1W	F
R051	1-247-807-31	CARBON	100	5%	1/4W	
R052	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R053	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R054	1-249-405-11	CARBON	100	5%	1/4W	F
R055	1-249-421-11	CARBON	2.2K	5%	1/4W	
R056	1-249-438-11	CARBON	56K	5%	1/4W	
R057	1-215-871-11	METAL OXIDE	2.2K	5%	1W	F
R058	1-249-415-11	CARBON	680	5%	1/4W	
R059	1-249-389-11	CARBON	4.7	5%	1/4W	F
R060	1-249-389-11	CARBON	4.7	5%	1/4W	F
R061	1-247-807-31	CARBON	100	5%	1/4W	
R062	1-249-441-11	CARBON	100K	5%	1/4W	
R063	1-249-441-11	CARBON	100K	5%	1/4W	
R064	1-216-361-00	METAL OXIDE	0.22	5%	2W	F
R065	1-216-361-00	METAL OXIDE	0.22	5%	2W	F
R080	1-249-437-11	CARBON	47K	5%	1/4W	
R081	1-249-438-11	CARBON	56K	5%	1/4W	
R082	1-247-807-31	CARBON	100	5%	1/4W	
R101	1-249-412-11	CARBON	390	5%	1/4W	
R102	1-249-412-11	CARBON	390	5%	1/4W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION
RV001	1-228-991-00	RES, ADJ, CARBON 2.2K
RV002	1-228-991-00	RES, ADJ, CARBON 2.2K

****

*A-1390-102-A N BOARD, COMPLETE
****

*1-634-041-11 PC BOARD, N
*4-337-475-00 HOLDER (D), LED

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C601	1-124-589-11	ELECT	47MF	20%	16V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D601	8-719-920-05	DIODE SLP281C-50
D602	8-719-812-31	DIODE TLR123

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC601	8-741-100-47	IC SBX1610-09

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
N-1	*1-564-519-11	PLUG, CONNECTOR 4P

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q601	8-729-119-78	TRANSISTOR 2SC2785-HFE

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			
R601	1-249-409-11	CARBON	220	5%	1/4W
R602	1-249-409-11	CARBON	220	5%	1/4W
R603	1-249-409-11	CARBON	220	5%	1/4W
R604	1-249-433-11	CARBON	22K	5%	1/4W
R605	1-249-429-11	CARBON	10K	5%	1/4W

****

*A-1394-325-A Y BOARD, COMPLETE
****

*1-526-654-21 SOCKET, IC (DP) 16P
*1-526-659-00 SOCKET, IC (DP) 28P
*1-526-950-11 SOCKET, IC 64P
*1-563-949-11 SOCKET, SIL 8P

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C2	1-124-927-11	ELECT	4.7MF	20%	50V	
C3	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C4	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C5	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C6	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C7	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C8	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C9	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C10	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C11	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C12	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C13	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C14	1-163-036-00	CERAMIC CHIP	0.068MF		50V	
C15	1-164-344-11	CERAMIC CHIP	0.068MF	10%	25V	
C16	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C17	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C18	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C19	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C20	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C21	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C22	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C23	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C24	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C25	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C26	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C27	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C28	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C29	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C30	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C31	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C32	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C33	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C34	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C35	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C36	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C37	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C38	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C39	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C40	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C41	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C42	1-124-477-11	ELECT	47MF	20%	16V	
C43	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C45	1-163-089-00	CERAMIC CHIP	6PF	0.5PF	50V	
C46	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C47	1-124-119-00	ELECT	330MF	20%	16V	
C48	1-124-477-11	ELECT	47MF	20%	16V	
C49	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C50	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C51	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C52	1-126-103-11	ELECT	470MF	20%	16V	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK
C53	1-124-477-11	ELECT 47MF 20% 16V	
C54	1-126-101-11	ELECT 100MF 20% 16V	
C55	1-126-101-11	ELECT 100MF 20% 16V	
C56	1-126-101-11	ELECT 100MF 20% 16V	
C57	1-163-227-11	CERAMIC CHIP 10PF 0.5PF 50V	
C58	1-163-227-11	CERAMIC CHIP 10PF 0.5PF 50V	
C59	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C60	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C61	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C62	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C63	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C64	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C65	1-163-036-00	CERAMIC CHIP 0.068MF 50V	
C67	1-124-119-00	ELECT 330MF 20% 16V	
C68	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C69	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C70	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C71	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C72	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C73	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C74	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C75	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C76	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C77	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C78	1-124-907-11	ELECT 10MF 20% 50V	
C79	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C80	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C81	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C82	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C83	1-124-907-11	ELECT 10MF 20% 50V	
C84	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C85	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C86	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C87	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C88	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C90	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C91	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C92	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D2	8-719-971-20	DIODE ERC38-06	
D4	8-719-820-12	DIODE TLR224	
D5	8-719-104-34	DIODE 1S2836	
D7	8-719-801-78	DIODE 1SS184	
D8	8-719-801-78	DIODE 1SS184	
D9	8-719-104-34	DIODE 1S2836	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1	8-759-320-49	IC HD64180R1P8	
IC2	8-759-748-29	IC MBM27C512-20	
IC3	8-752-356-60	IC CXK5864CM-10LL	
IC4	8-759-196-99	IC UPD28C64ACZ-15	
IC5	8-759-925-80	IC SN74HC14ANS	
IC6	8-759-239-55	IC TC74HC123AF	
IC7	8-759-008-21	IC MC74HC541F	
IC8	8-759-008-21	IC MC74HC541F	
IC9	8-759-995-97	IC MB8855-1314N	
IC10	8-759-984-56	IC MB670840PF	
IC11	8-759-984-59	IC MB654842UPF	
IC12	8-759-984-58	IC MB671469PF	
IC13	8-759-181-02	IC MB605E66	
IC14	8-752-322-10	IC CXK5814P-45L	
IC15	8-752-333-84	IC CXK3864-040M	
IC16	8-752-333-85	IC CXK3864-041M	
IC17	8-752-333-86	IC CXK3864-042M	
IC18	8-759-301-24	IC HD10124	
IC19	8-759-301-24	IC HD10124	
IC20	8-752-306-51	IC CX23065A	
IC21	8-759-911-24	IC SN74S124N	
IC22	8-759-100-93	IC UPC393G2	
IC23	8-759-031-50	IC MC74F00M	
IC24	8-759-008-57	IC MC34051P	
IC25	8-759-114-06	IC UPC814G2-1	
IC26	8-759-032-32	IC MC74HC132AF	
IC27	8-759-925-98	IC SN74HC107ANS	
IC28	8-759-032-01	IC MC74HC00AF	
IC29	8-759-239-55	IC TC74HC123AF	
IC30	8-759-032-29	IC MC74HC126AF	
IC31	8-759-925-80	IC SN74HC14ANS	
IC32	8-759-008-21	IC MC74HC541F	
IC33	8-759-979-65	IC RH5VA43AA	
IC34	8-759-032-41	IC MC74HC157AF	
IC35	8-759-925-54	IC LM2940CT-5.0	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L1	1-459-155-00	COIL (WITH CORE) 45UH	
L2	1-459-155-00	COIL (WITH CORE) 45UH	
L3	1-459-155-00	COIL (WITH CORE) 45UH	
L4	1-459-155-00	COIL (WITH CORE) 45UH	

<IC LINK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
PS1	⚠1-532-679-91	LINK, IC 0.6A	
PS2	⚠1-532-679-91	LINK, IC 0.6A	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q3	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4	8-729-216-22	TRANSISTOR 2SA1162-G	
Q5	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q7	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q9	8-729-216-22	TRANSISTOR 2SA1162-G	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R2	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R3	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R4	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R5	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R6	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R7	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R8	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R9	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R10	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R11	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R12	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R13	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R14	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R15	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R16	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R17	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R18	1-216-025-00	METAL GLAZE 100 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R19	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R20	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R21	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R22	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R23	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R24	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R25	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R26	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R27	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R28	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R29	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R30	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R31	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R32	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R33	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R34	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R36	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R37	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R38	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R39	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R40	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R41	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R42	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R43	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R44	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R45	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R46	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R47	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R48	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R49	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R50	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R51	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R52	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R53	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R54	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R55	1-216-037-00	METAL-GLAZE	330	5%	1/10W	
R56	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R57	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R58	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R59	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R62	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R63	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R64	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R65	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R66	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R67	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R68	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R69	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R70	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R71	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R72	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R73	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R74	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R75	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R76	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R77	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R78	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R79	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R80	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R81	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R82	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R83	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R84	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R85	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R86	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R87	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R88	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R89	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R90	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R91	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R92	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R93	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R100	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R101	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R102	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R103	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R104	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R105	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R106	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R107	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R108	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R109	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R110	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R111	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R112	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R113	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R114	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R115	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R116	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R117	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R118	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R119	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R120	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R121	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R122	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R123	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R124	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R125	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R126	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R127	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R128	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R129	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R130	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R131	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R132	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R133	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R134	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R135	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R136	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R137	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R138	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R139	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R140	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R141	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R142	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R143	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R146	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R147	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R148	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R149	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R150	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R151	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R152	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R153	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R154	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R155	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R156	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

ie components identified by ading and mark ⚠ are critical for safety.
Replace only with part number ecified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne lès remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R157	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R158	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R159	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R160	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R162	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R163	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R164	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R165	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R166	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R167	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R168	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R169	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R170	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R171	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R172	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R173	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R174	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R175	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R176	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R177	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R178	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R179	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R181	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R182	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R183	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R184	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R185	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R187	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R189	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R190	1-216-295-00	METAL GLAZE	0	5%	1/10W	

<SWITCH>

SW1	1-570-598-11	SWITCH, DIP
SW2	1-570-204-21	SWITCH, KEY BOARD

<CRYSTAL>

X1	1-578-687-11	VIBRATOR, CRYSTAL
X2	1-577-116-21	VIBRATOR, CRYSTAL
X3	1-567-192-11	OSCILLATOR, CERAMIC
X4	1-577-353-11	VIBRATOR, CERAMIC

<CONNECTOR>

Y-1	*1-568-984-11	CONNECTOR, MALE 96P

****

A-1499-937-A X BOARD, COMPLETE
****

*4-353-708-00 HOOK, FINGER

<CONNECTOR>

X MOUNT	1-941-648-22	CONNECTOR ASSY, MICRO 2P
X-1	*1-568-984-11	CONNECTOR, MALE 96P
X-2	*1-568-982-11	CONNECTOR, FEMALE 96P
X-3	*1-568-983-11	CONNECTOR, FEMALE 96P

****

MISCELLANEOUS
****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	⚠1-241-744-21	RESISTOR ASSY (HIGH-VOLTAGE)	
	⚠1-413-934-11	REGULATOR, SWITCHING (SOPS-1047)	(RVP-6010Q)
	⚠1-413-935-11	REGULATOR, SWITCHING (SOPS-1074)	(RVP-6010QM)
	⚠1-451-355-11	DEFLECTION YOKE (Y636PJ)	
	⚠1-452-429-31	NECK ASSY, PITURE TUBE (NA366)	
	⚠1-452-730-11	NECK ASSEMBLY (NA-3613)	
	⚠1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
	⚠1-453-108-31	DC BLOCK, HIGH-VOLTAGE	
	1-503-917-11	SPEAKER	
	1-541-950-11	FAN, DC	
	*1-555-110-00	CABLE, P-P	
	⚠1-559-865-31	LEAD ASSY, HIGH-VOLTAGE	
	⚠1-559-865-41	LEAD ASSY, HIGH-VOLTAGE	
	*1-575-091-11	CABLE, P-P	
	1-575-092-11	CONNECTOR ASSY, MULTI 14P	
	1-698-057-11	FAN, DC	
	⚠1-900-086-01	LEAD ASSY, HIGH-VOLTAGE	
V901	⚠8-736-060-05	PITURE TUBE 07MSJ(G)	
V902	⚠8-736-061-05	PITURE TUBE 07MSJ(B)	
V903	⚠8-736-062-05	PITURE TUBE 07MSJ(R)	

****

ACCESSORIES AND PACKING MATERIALS
****

PART NO.	DESCRIPTION	REMARK
*A-1280-414-A	RC BOARD, COMPLETE	
A-1499-937-A	X BOARD, COMPLETE	
*X-4031-731-1	PANEL ASSY (RVP-6010QM)	
*X-4031-875-1	PANEL ASSY (RVP-6010Q)	
⚠1-559-303-21	CORD, POWER (10.0A/125V) (RVP-6010Q)	
⚠1-575-175-11	CORD SET, POWER (10.0A/250V)	(RVP-6010QM)
1-765-144-11	CORD, CONNECTION	
2-357-277-01	PANEL, FRONT	
3-562-223-00	TERMINAL BOARD, POSITIVE	
3-752-649-11	INSTRUCTION (MANUAL)	
3-752-650-11	INSTRUCTION (FITTING)	
3-758-876-21	MANUAL, ESTABLISHMENT (ENGLISH, FRENCH)	
3-758-876-41	MANUAL, ESTABLISHMENT (GERMAN)	
3-758-877-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH)	
3-758-877-41	MANUAL, INSTRUCTION (GERMAN)	
*3-674-673-01	STOPPER (A)	
*4-030-142-01	CUSHION (UPPER)	
*4-030-143-01	RAIL	
4-032-658-01	KEY TOP	
4-032-660-01	SHEET, RUBBER	
*4-043-902-01	LID	
*4-044-940-01	BAND, ASSEMBLY	
4-374-469-01	FOOT, RUBBER	
4-395-501-01	KEY TOP	
4-395-502-01	LID (A)	
4-395-503-31	LID (B)	
4-395-504-01	COVER, BATTERY	
4-395-508-01	CASE, LOWER	
*4-396-287-01	SPACER	
*4-396-288-01	BOX, ACCESSORY	
*4-396-908-01	SPACER	
*4-396-931-01	BAG, POLYETHYLENE	
*4-398-727-01	CAP	

ACCESSORIES AND PACKING MATERIALS (CABINET(U))
****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*X-4031-730-1	PANEL ASSY	
	*3-674-673-01	STOPPER (A)	
	*4-043-898-01	LID	
	*4-043-903-01	CUSHION (UPPER)	
	*4-044-940-01	BAND, ASSEMBLY	
	*4-395-902-01	BAG, PROTECTION	
	*4-396-931-01	BAG, POLYETHYLENE	
	*4-396-932-01	SPACER, SCREEN	
	*4-396-936-02	CARTON, SCREEN	

Sony Corporation
B&I Systems Company

English
94EK02282-1
Printed in Japan

© 1994.5

RVP-6010Q/6010QM

SP0184 **RM-1271**

SONY.
SERVICE MANUAL

US Model
Canadian Model
RVP-6010Q
Chassis No. SCC-D83D-A

AEP Model
RVP-6010QM
Chassis No. SCC-D82D-A

SUPPLEMENT-1

File this spplement with the service manual.

INTRODUCTION

Repair part form of M and PF boards has been changed from a mounted board to a board only.

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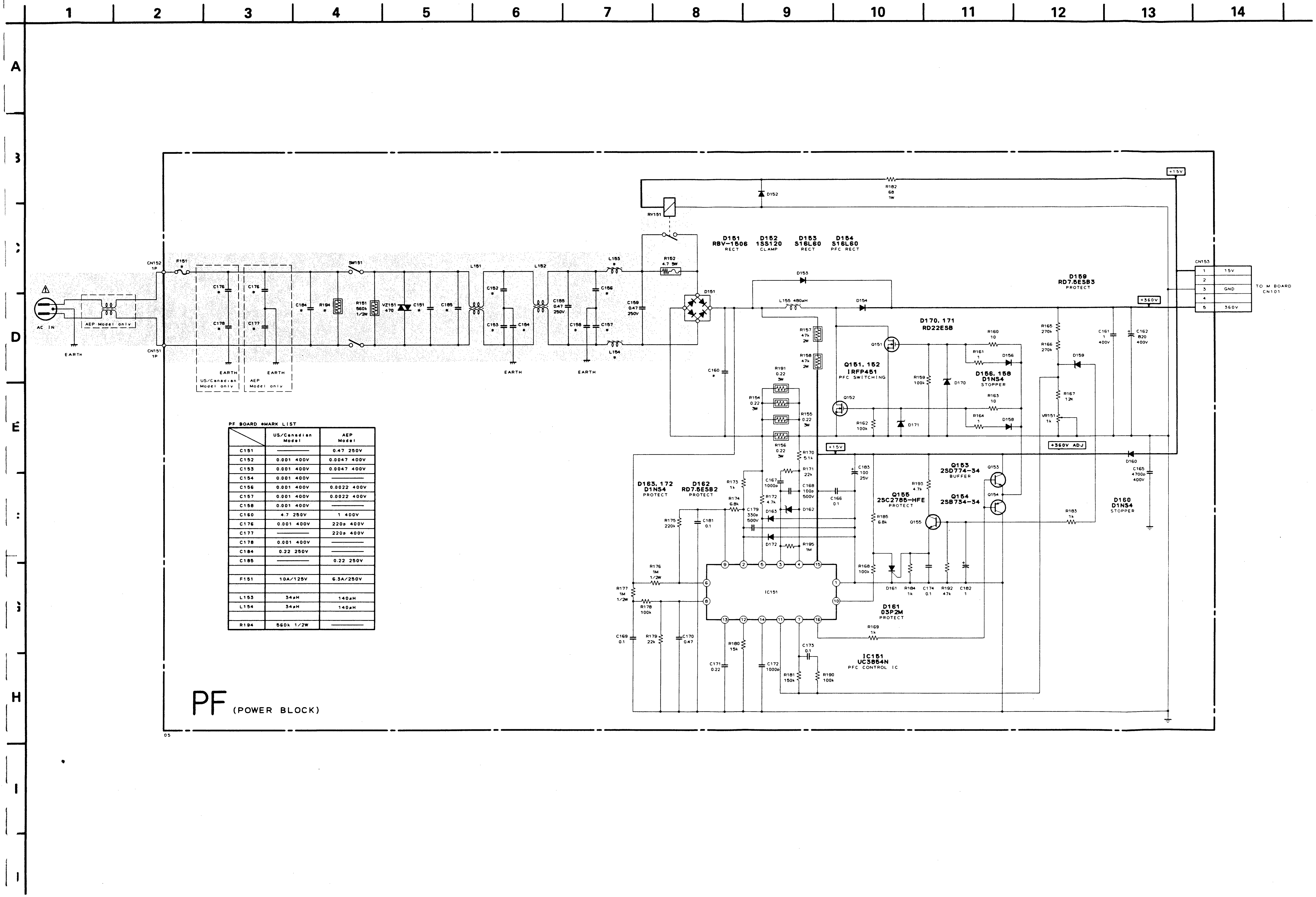
MICROFILM

PF Board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A
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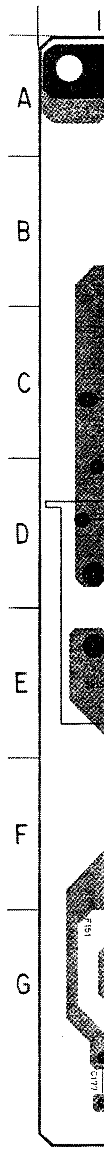
H
I
AC IN
EARTH
AEP Model only
CN152
1P
CN151
1P
F151
*
C176
*
C178
*
EARTH
US/Canadian
Model only
C176
*
C177
*
EARTH
AEP
Model only
C184
*
R194
*
SW151
R151
560k
1/2W
VZ151
470
C151
*
C185
*
L151
C152
*
C153
*
C154
*
EARTH
L152
C155
0.47
250V
C158
*
C157
*
C156
*
EARTH
L153
*
L154
*
C159
0.47
250V
RY151
R152
4.7 5W
D151
D152
R182
68
1W
+15V
D151
RBV-1506
RECT
D152
1SS120
CLAMP
D153
S16L60
RECT
D154
S16L60
PFC RECT
D153
L155 480µH
D154
C160
*
R157
47k
2W
R158
47k
2W
R191
0.22
3W
R154
0.22
3W
R155
0.22
3W
R156
0.22
3W
Q151, 152
IRFP451
PFC SWITCHING
Q151
Q152
D170, 171
RD22ESB
R159
100k
D170
R162
100k
D171
R160
10
R161
1
D156
D156, 158
D1NS4
STOPPER
R163
10
R164
1
D158
D159
RD7.5ESB3
PROTECT
R165
270k
R166
270k
D159
R167
12K
VR151
1k
+360V ADJ
C161
1
400V
C162
820
400V
+360V
CN153
1
15V
2
3
GND
4
5
360V
TO M BOARD
CN101
+15V
R170
5.1k
R171
22k
C183
100
25V
C167
1000p
C168
100p
500V
C166
0.1
R173
1k
R172
4.7k
D162
D163, 172
D1NS4
PROTECT
D162
RD7.5ESB2
PROTECT
R174
6.8k
C179
330p
500V
D163
D172
R195
1M
R175
220k
C181
0.1
R176
1M
1/2W
R177
1M
1/2W
R178
100k
IC151
9
2
5
3
4
15
6
8
1
10
13
12
14
11
7
16
C169
0.1
R179
22k
C170
0.47
R180
15k
C171
0.22
C172
1000p
C173
0.1
R181
150k
R190
100k
IC151
UC3854N
PFC CONTROL IC
R169
1k
D161
03P2M
PROTECT
R168
100k
D161
R184
1k
C174
0.1
R192
47k
C182
1
R185
6.8k
Q155
2SC2785-HFE
PROTECT
Q155
R193
4.7k
Q153
2SD774-34
BUFFER
Q153
Q154
2SB734-34
Q154
R183
1k
D160
D1NS4
STOPPER
D160
C165
4700p
400V
PF
(POWER BLOCK)
05

PF BOARD *MARK LIST

	US/Canadian Model	AEP Model
C151	————	0.47 250V
C152	0.001 400V	0.0047 400V
C153	0.001 400V	0.0047 400V
C154	0.001 400V	————
C156	0.001 400V	0.0022 400V
C157	0.001 400V	0.0022 400V
C158	0.001 400V	————
C160	4.7 250V	1 400V
C176	0.001 400V	220p 400V
C177	————	220p 400V
C178	0.001 400V	————
C184	0.22 250V	————
C185	————	0.22 250V
F151	10A/125V	6.3A/250V
L153	34µH	140µH
L154	34µH	140µH
R194	560k 1/2W	————

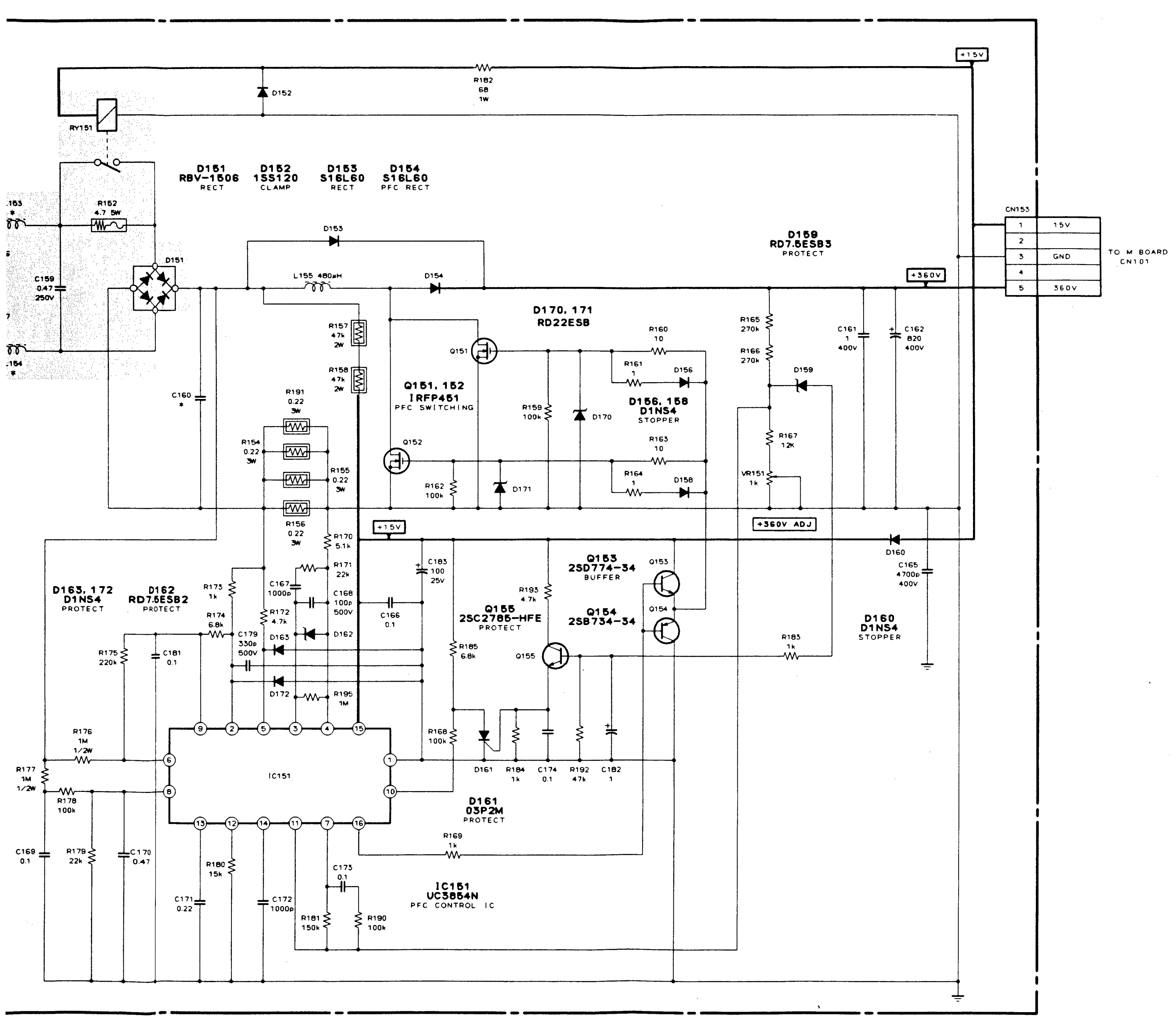
– PF Boa



● PF B

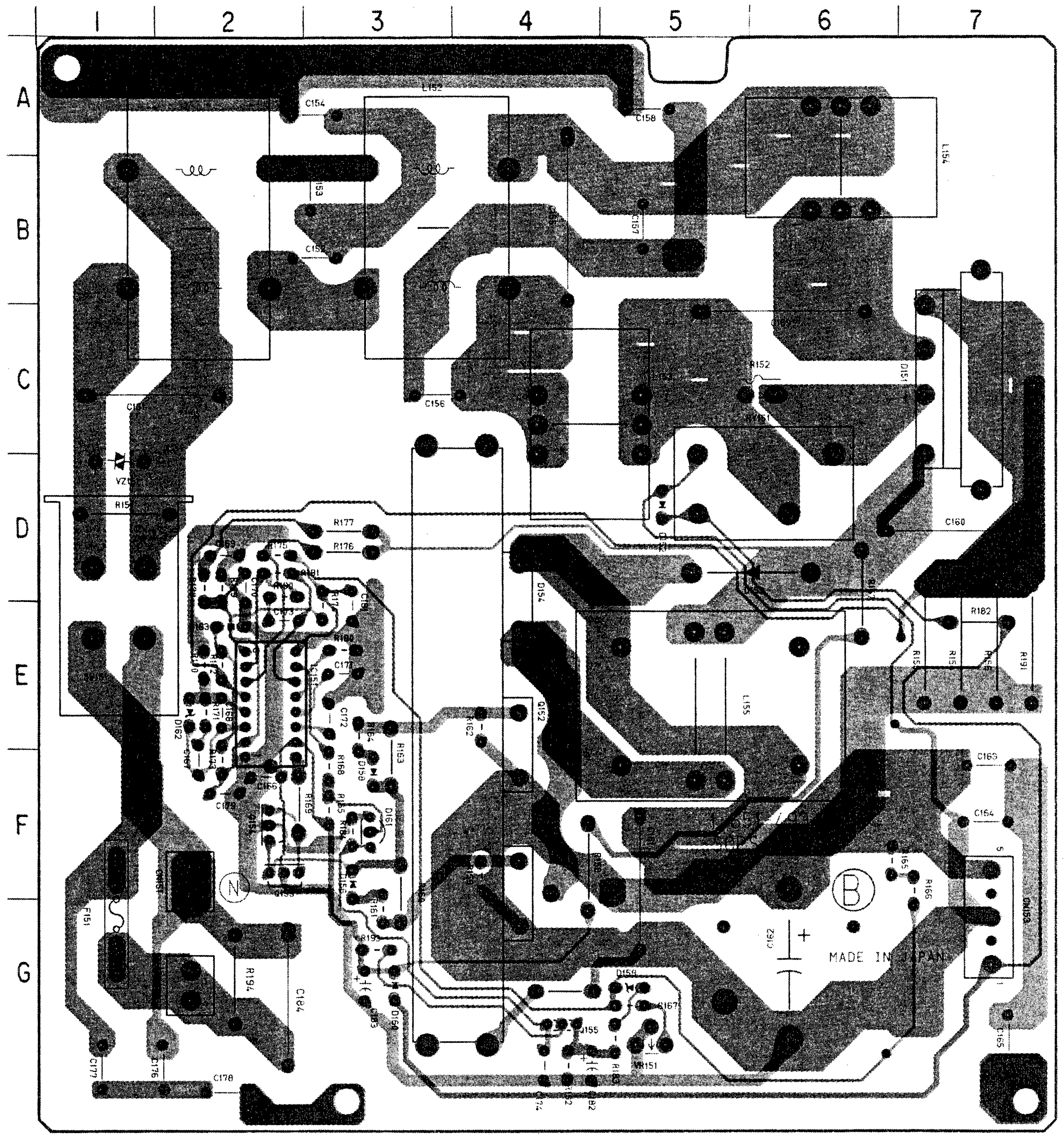
I
IC151

8 9 10 11 12 13 14


RY151
D152
R182
68
1W
+15V
D151
RBV-1506
RECT
D152
1SS120
CLAMP
D153
S16L60
RECT
D154
S16L60
PFC RECT
.153
.154
R152
4.7 5W
C159
0.47
250V
D151
D153
L155 480μH
D154
D159
RD7.5ESB3
PROTECT
+360V
CN153
1 15V
2
3 GND
4
5 360V
TO M BOARD
CN101
D170, 171
RD22ESB
R157
4.7k
2W
R158
4.7k
2W
Q151
Q151, 152
IRFP451
PFC SWITCHING
R160
10
R161
1
D156
D156, 158
D1NS4
STOPPER
R159
100k
D170
R163
10
R164
1
D158
R165
270k
R166
270k
D159
R167
12K
VR151
1k
C161
1
400V
C162
820
400V
+360V ADJ
C160
*
R191
0.22
3W
R154
0.22
3W
R155
0.22
3W
R156
0.22
3W
Q152
R162
100k
D171
+15V
R170
5.1k
R171
22k
C183
100
25V
C167
1000p
C168
100p
500V
C166
0.1
D160
C165
4700p
400V
Q153
2SD774-34
BUFFER
Q154
2SB734-34
Q155
2SC2785-HFE
PROTECT
R193
4.7k
D160
D1NS4
STOPPER
D163, 172
D1NS4
PROTECT
D162
RD7.5ESB2
PROTECT
R173
1k
R174
6.8k
R172
4.7k
C179
330p
500V
D163
D162
D172
R195
1M
R175
220k
C181
0.1
R185
6.8k
R183
1k
R176
1M
1/2W
R177
1M
1/2W
R178
100k
IC151
R168
100k
D161
R184
1k
C174
0.1
R192
47k
C182
1
D161
03P2M
PROTECT
C169
0.1
R179
22k
C170
0.47
R180
15k
C171
0.22
C172
1000p
R169
1k
C173
0.1
R181
150k
R190
100k
IC151
UC3854N
PFC CONTROL IC

PF [POWER BLOCK]

– PF Board –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A
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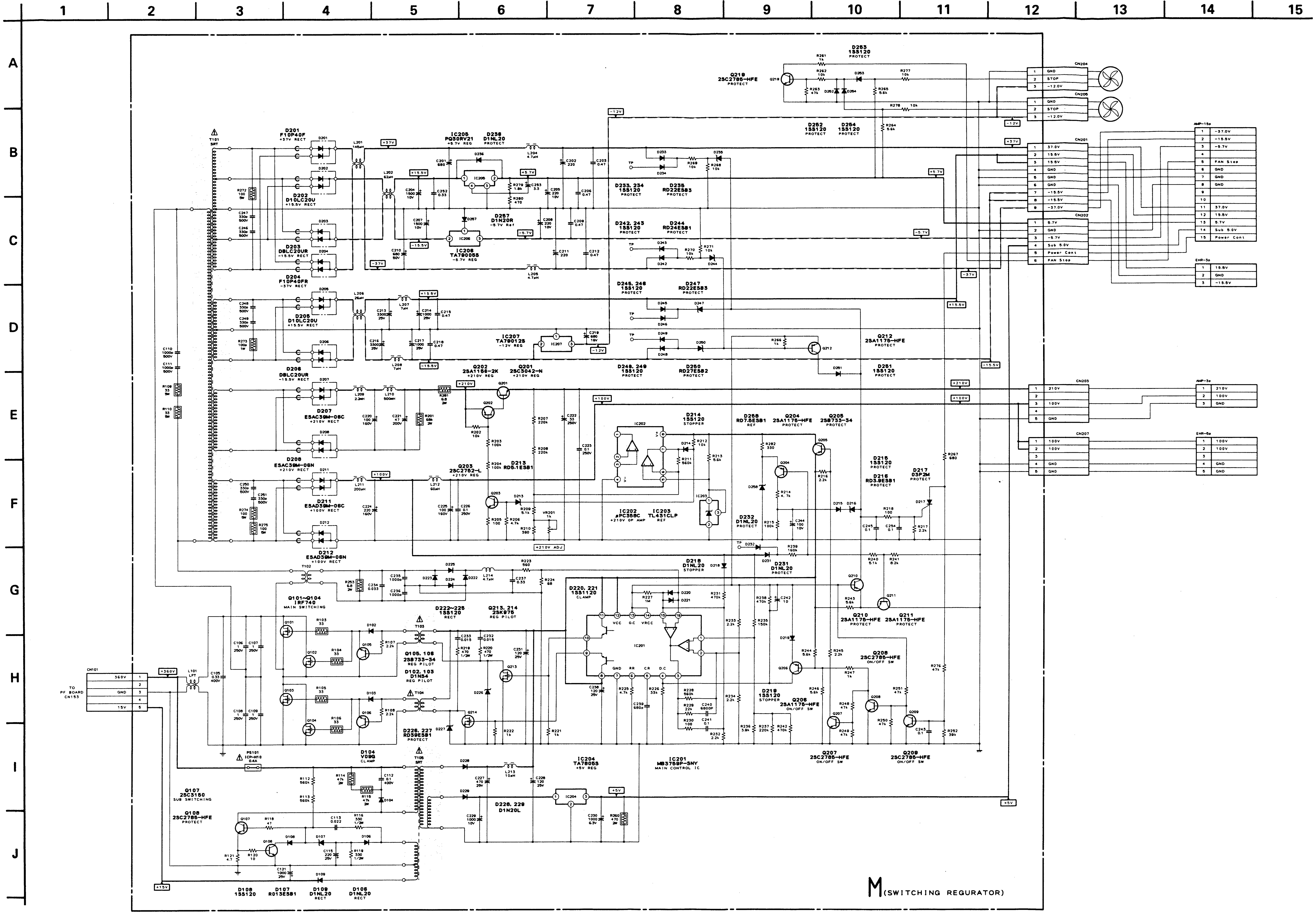
C
D
E
F
G
MADE IN JAPAN

- ▒ : Pattern from the side which enables seeing.
- ▒ : Pattern of the rear side.

- **PF BOARD**

IC	TRANSISTOR	DIODE	D160 G – 3 D161 F – 3
IC151 E – 2	Q151 F – 4	D151 C – 7	D162 E – 2
	Q152 E – 4	D152 D – 5	D163 E – 2
	Q153 F – 2	D153 D – 5	VARIABLE RESISTOR
	Q154 F – 2	D154 D – 4	
	Q155 G – 4	D156 F – 3	VR151 G – 5
		D158 F – 3	
		D159 G – 5	

• M Board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A
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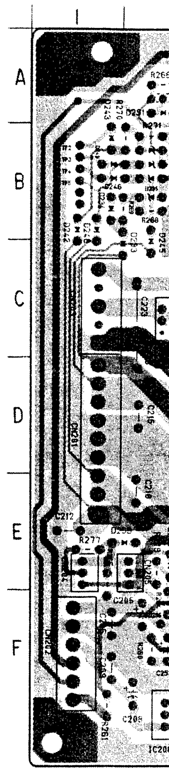
G
H
I
J
T101 SRT
D201 F10P40F +37V RECT
D202 D10LC20U +15.5V RECT
D203 D8LC20UR -15.5V RECT
D204 F10P40FR -37V RECT
D205 D10LC20U +15.5V RECT
D206 D8LC20UR -15.5V RECT
D207 ESAC39M-08C +210V RECT
D208 ESAC39M-08N +210V RECT
D211 ESAD39M-08C +100V RECT
D212 ESAD39M-08N +100V RECT
IC205 PQ30RV21 +5.7V REG
D238 D1NL20 PROTECT
D257 D1N20R -5.7V Ref
IC206 TA79005 -5.7V REG
IC207 TA79012S -12V REG
Q202 2SA1156-2K +210V REG
Q201 2SC3042-N +210V REG
Q203 2SC2752-L +210V REG
D213 RD5.1ES81
IC202 μPC358C +210V OP AMP
IC203 TL431CLP REF
D214 1SS120 STOPPER
D258 RD7.5ES81 REF
Q204 2SA1175-HFE PROTECT
Q205 2SB733-34 PROTECT
D215 1SS120 PROTECT
D216 RD3.9ES81 PROTECT
D217 03P2M PROTECT
D232 D1NL20 PROTECT
D218 D1NL20 STOPPER
D231 D1NL20 PROTECT
D253 1SS120 PROTECT
Q219 2SC2785-HFE PROTECT
D252 1SS120 PROTECT
D254 1SS120 PROTECT
D233, 234 1SS120 PROTECT
D235 RD22ES83 PROTECT
D242, 243 1SS120 PROTECT
D244 RD24ES81 PROTECT
D245, 246 1SS120 PROTECT
D247 RD22ES83 PROTECT
D248, 249 1SS120 PROTECT
D250 RD27ES82 PROTECT
Q212 2SA1175-HFE PROTECT
D251 1SS120 PROTECT
Q101-Q104 IRF740 MAIN SWITCHING
D222-225 1SS120 RECT
Q213, 214 2SK976 REG PILOT
D220, 221 1SS1120 CLAMP
Q105, 106 2SB733-34 REG PILOT
D102, 103 D1N54 REG PILOT
D226, 227 RD39ES81 PROTECT
Q210 2SA1175-HFE PROTECT
Q211 2SA1175-HFE PROTECT
Q208 2SC2785-HFE ON/OFF SW
D219 1SS120 STOPPER
Q206 2SA1175-HFE ON/OFF SW
Q207 2SC2785-HFE ON/OFF SW
Q209 2SC2785-HFE ON/OFF SW
IC201 MB3759P-SNY MAIN CONTROL IC
IC204 TA78005 +5V REG
D104 V09G CLAMP
D228, 229 D1N20L
PS101 ICP-N10 0.4A
Q107 2SC3150 SUB SWITCHING
Q108 2SC2785-HFE PROTECT
D108 1SS120
D107 RD13ES81
D109 D1NL20 RECT
D106 D1NL20 RECT
CN101
TO PF BOARD CN153
360V
GND
15V
+360V
+15V
+5V
+37V
+15.5V
-15.5V
-37V
-12V
-5.7V
+5.7V
+210V
+100V
+210V ADJ
CN201
CN202
CN203
CN204
CN205
CN207
AMP-15p
EHR-3p
AMP-3p
EHR-5p
37.0V
15.5V
GND
-15.5V
-37.0V
5.7V
-5.7V
Sub 5.0V
Power Cont
FAN Stop
STOP
-12.0V
210V
100V
M (SWITCHING REGURATOR)

M [SWITC

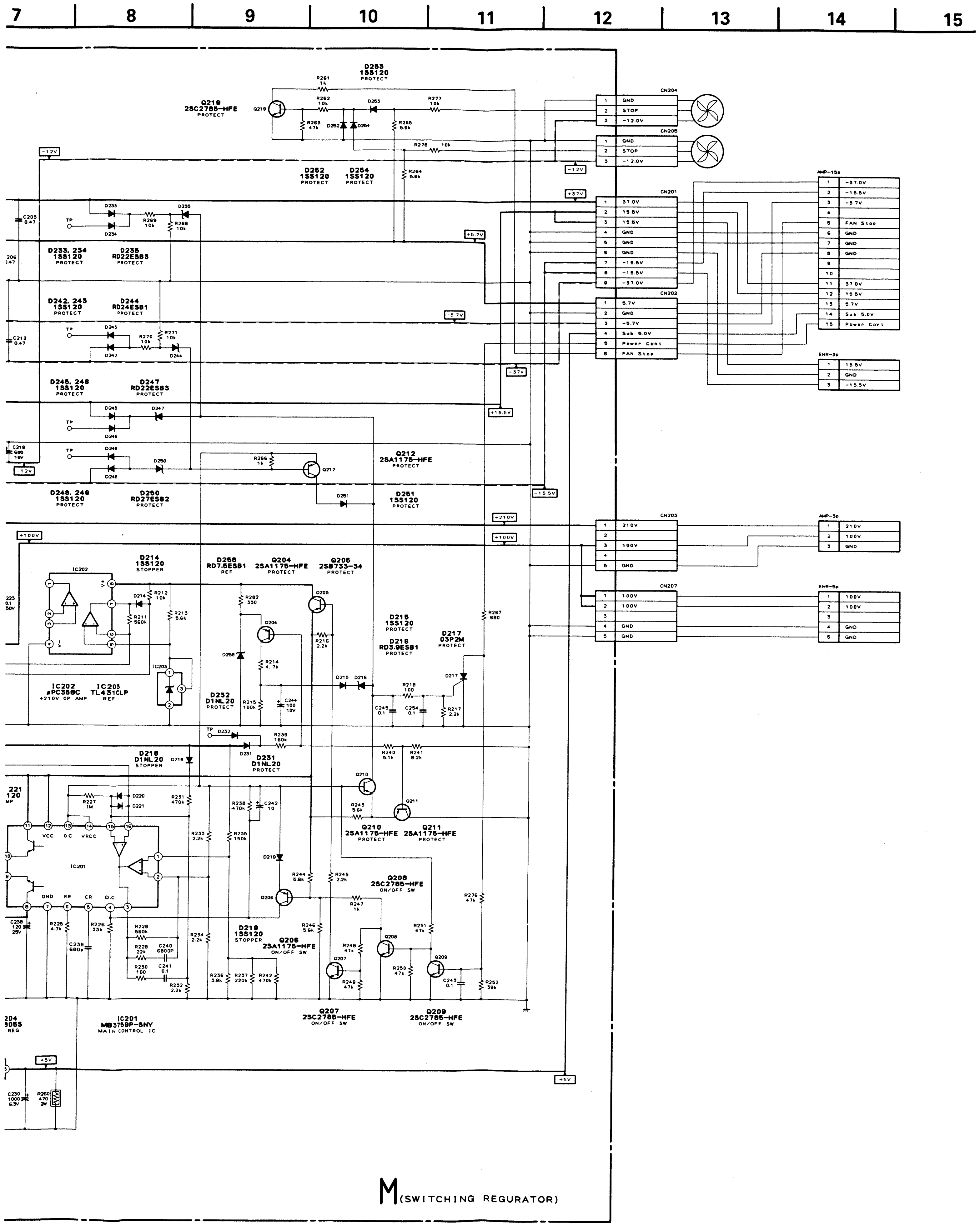
– M Board –



• M BOA

IC
IC201 A
IC202 E
IC203 C
IC204 E
IC205 F
IC206 F
IC207 E

TRANSI
Q101 F
Q102 E
Q103 D
Q104 C
Q105 D
Q106 C
Q107 E
Q108 E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8
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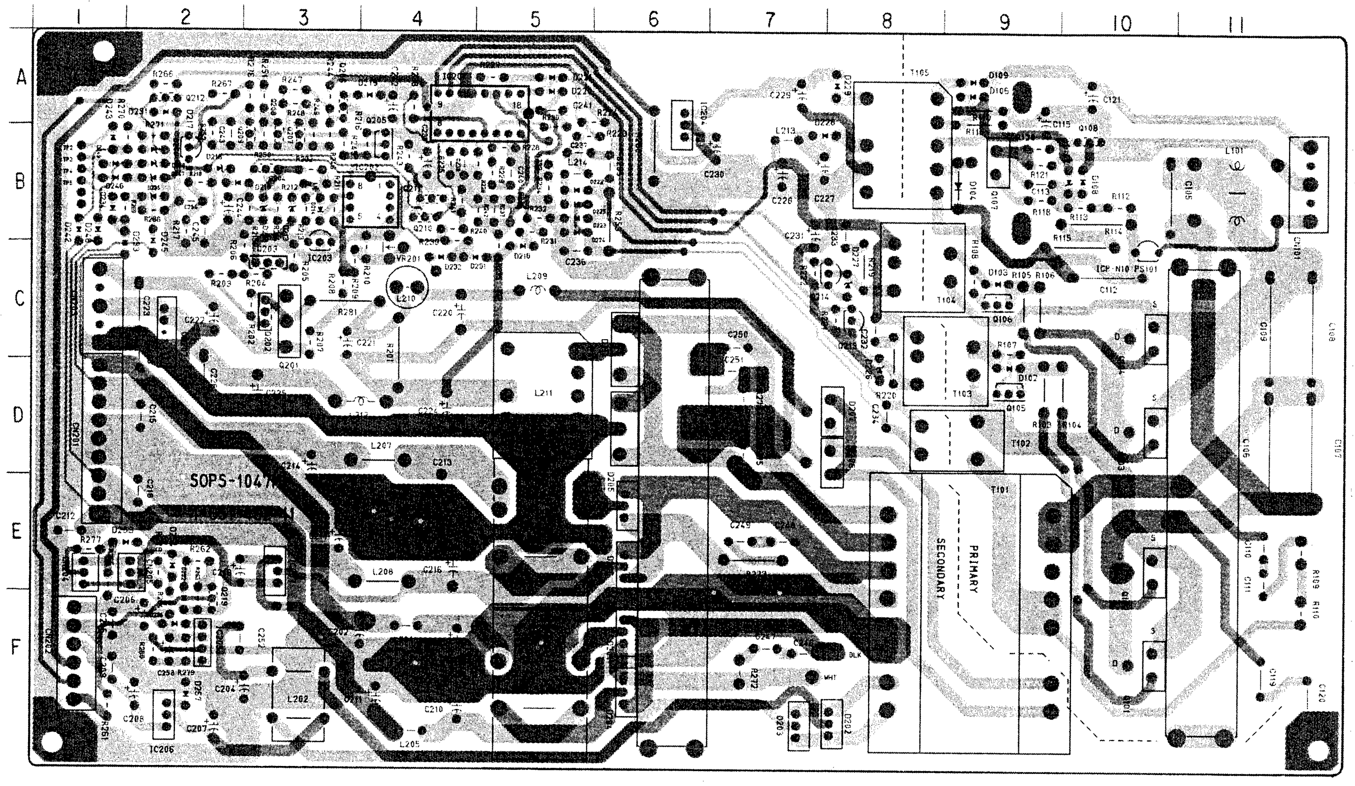
15
Q219 2SC2785-HFE PROTECT
D253 1SS120 PROTECT
D252 1SS120 PROTECT
D254 1SS120 PROTECT
CN204
1 GND
2 STOP
3 -12.0V
CN205
1 GND
2 STOP
3 -12.0V
CN201
1 37.0V
2 15.5V
3 15.5V
4 GND
5 GND
6 GND
7 -15.5V
8 -15.5V
9 -37.0V
CN202
1 5.7V
2 GND
3 -5.7V
4 Sub 5.0V
5 Power Cont
6 FAN Stop
AMP-15p
1 -37.0V
2 -15.5V
3 -5.7V
5 FAN Stop
6 GND
7 GND
8 GND
11 37.0V
12 15.5V
13 5.7V
14 Sub 5.0V
15 Power Cont
EHR-3p
1 15.5V
2 GND
3 -15.5V
-12V
+37V
+5.7V
-5.7V
-37V
+15.5V
-15.5V
+210V
+100V
+5V
D233, 234 1SS120 PROTECT
D235 RD22ESB3 PROTECT
D242, 243 1SS120 PROTECT
D244 RD24ESB1 PROTECT
D245, 246 1SS120 PROTECT
D247 RD22ESB3 PROTECT
D248, 249 1SS120 PROTECT
D250 RD27ESB2 PROTECT
Q212 2SA1175-HFE PROTECT
D251 1SS120 PROTECT
CN203
1 210V
3 100V
5 GND
AMP-3p
1 210V
2 100V
3 GND
CN207
1 100V
2 100V
4 GND
5 GND
EHR-5p
1 100V
2 100V
4 GND
5 GND
D214 1SS120 STOPPER
D258 RD7.5ESB1 REF
Q204 2SA1175-HFE PROTECT
Q205 2SB733-34 PROTECT
D215 1SS120 PROTECT
D216 RD3.9ESB1 PROTECT
D217 03P2M PROTECT
IC202 μPC358C +210V OP AMP
IC203 TL431CLP REF
D232 D1NL20 PROTECT
D218 D1NL20 STOPPER
D231 D1NL20 PROTECT
Q210 2SA1175-HFE PROTECT
Q211 2SA1175-HFE PROTECT
Q208 2SC2785-HFE ON/OFF SW
D219 1SS120 STOPPER
Q206 2SA1175-HFE ON/OFF SW
Q207 2SC2785-HFE ON/OFF SW
Q209 2SC2785-HFE ON/OFF SW
IC201 MB3759P-SNY MAIN CONTROL IC

M (SWITCHING REGURATOR)

M [SWITCHING REGURATOR]

– M Board –


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
SOPS-1047
PRIMARY
SECONDARY

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

• M BOARD

IC	
IC201	A – 4
IC202	B – 3
IC203	C – 3
IC204	B – 6
IC205	F – 2
IC206	F – 2
IC207	E – 3

TRANSISTOR	
Q101	F – 10
Q102	E – 10
Q103	D – 10
Q104	C – 10
Q105	D – 9
Q106	C – 9
Q107	B – 9
Q108	B – 10
Q201	C – 3
Q202	C – 3
Q203	C – 3
Q204	B – 3
Q205	B – 4
Q206	A – 3
Q207	B – 3
Q208	B – 3
Q209	B – 3
Q210	B – 4
Q211	B – 4
Q212	A – 2
Q213	C – 8
Q214	C – 8
Q219	F – 2

DIODE	
D102	C – 9
D103	C – 9
D104	B – 9
D106	A – 9
D107	B – 10
D108	B – 10
D109	A – 9
D201	F – 6
D202	F – 8
D203	F – 7
D204	F – 6
D205	E – 6
D206	E – 6
D207	D – 8
D208	D – 8
D211	C – 6
D212	D – 6
D213	B – 3
D214	B – 3
D215	B – 2
D216	B – 2
D217	B – 2
D218	B – 5
D219	A – 4
D220	A – 5
D221	A – 5
D222	B – 5
D223	B – 5
D224	B – 5
D225	B – 5
D226	C – 8
D227	C – 8
D228	B – 7
D229	A – 8
D232	C – 4
D233	C – 2
D234	B – 1
D235	B – 2
D236	F – 2
D242	B – 1
D243	B – 1
D244	B – 2
D245	C – 2
D246	B – 1
D247	B – 2
D248	B – 1
D249	B – 1
D250	B – 2
D251	A – 2
D252	E – 2
D253	E – 2
D254	E – 2
D257	F – 2
D258	B – 3

VARIABLE RESISTOR	
VR201	C – 4

M

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The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN205*	1-560-891-00	PIN, CONNECTOR 3P	
CN207*	1-564-508-11	PLUG, CONNECTOR 5P	
		<DIODE>	
D102	8-719-510-02	DIODE D1NS4	
D103	8-719-510-02	DIODE D1NS4	
D104	8-719-900-95	DIODE V09G	
D106	8-719-510-26	DIODE D1NL20-TA	
D107	8-719-110-35	DIODE RD13ESB1	
D108	8-719-912-20	DIODE 1SS120	
D109	8-719-510-26	DIODE D1NL20-TA	
D201	1-807-911-11	DIODE F10P40F	
D202	8-719-510-39	DIODE D10LC20U	
D203	8-719-025-11	DIODE D8LC20UR	
D204	1807-911-21	DIODE F10P40FR	
D205	8-719-510-39	DIODE D10LC20U	
D206	8-719-025-11	DIODE D8LC20UR	
D207	8-719-971-08	DIODE ESAC39M-06C	
D208	8-719-980-00	DIODE ESAC39M-06N	
D211	8-719-043-14	DIODE ESAD39M-06C	
D212	8-719-044-77	DIODE ESAD39M-06N	
D213	8-719-109-84	DIODE RD5.1ESB1	
D214	8-719-912-20	DIODE 1SS120	
D215	8-719-912-20	DIODE 1SS120	
D216	8-719-109-71	DIODE RD3.9ESB1	
D217	8-719-107-87	THYRISTOR 03P2M	
D218	8-719-510-26	DIODE D1NL20-TA	
D219	8-719-912-20	DIODE 1SS120	
D220	8-719-912-20	DIODE 1SS120	
D221	8-719-912-20	DIODE 1SS120	
D222	8-719-912-20	DIODE 1SS120	
D223	8-719-912-20	DIODE 1SS120	
D224	8-719-912-20	DIODE 1SS120	
D225	8-719-912-20	DIODE 1SS120	
D226	8-719-114-14	DIODE RD39ES-T1B1	
D227	8-719-114-14	DIODE RD39ES-T1B1	
D228	8-719-510-26	DIODE D1NL20-TA	
D229	8-719-510-26	DIODE D1NL20-TA	
D231	8-719-510-26	DIODE D1NL20-TA	
D232	8-719-510-26	DIODE D1NL20-TA	
D233	8-719-912-20	DIODE 1SS120	
D234	8-719-912-20	DIODE 1SS120	
D235	8-719-110-58	DIODE RD22ESB3	
D236	8-719-510-26	DIODE D1NL20-TA	
D242	8-719-912-20	DIODE 1SS120	
D243	8-719-912-20	DIODE 1SS120	
D244	8-719-110-61	DIODE RD24ESB1	
D245	8-719-912-20	DIODE 1SS120	
D246	8-719-912-20	DIODE 1SS120	
D247	8-719-110-58	DIODE RD22ESB3	
D248	8-719-912-20	DIODE 1SS120	
D249	8-719-912-20	DIODE 1SS120	
D250	8-719-110-67	DIODE RD27ESB2	
D251	8-719-912-20	DIODE 1SS120	
D252	8-719-912-20	DIODE 1SS120	
D253	8-719-912-20	DIODE 1SS120	
D254	8-719-912-20	DIODE 1SS120	
D257	8-719-510-48	DIODE D1N20R	
D258	8-719-110-02	DIODE RD7.5ESB1	
		<IC>	
IC201	8-759-906-62	IC MB3759P-SNY	
IC202	8-759-135-80	IC µPC358C	
IC203	8-759-908-15	IC TL431CLP	
IC204	8-759-231-53	IC TA7805S	
IC205	8-759-520-49	IC PQ30RV21	
IC206	8-759-245-79	IC TA79005S	
IC207	8-759-245-86	IC TA79012S	
		<COIL>	
L101	1424-058-11	LFT	
L201	1403-676-11	COIL, CHOKE 145.0µH	
L202	1403-674-11	COIL, CHOKE 62.0µH	
L204	1424-254-31	COIL, CHOKE (MOLDE) 4.7µH	
L205	1424-254-31	COIL, CHOKE (MOLDE) 4.7µH	
L206	1403-677-11	COIL, CHOKE 26.0µH	
L207	1406-751-11	COIL, CHOKE 7µH	
L208	1406-751-11	COIL, CHOKE 7µH	
L209	1406-985-11	COIL, CHOKE 2.2mH	
L210	1414-063-11	COIL, CHOKE 500µH	
L211	1403-679-11	COIL, CHOKE 200µH	
L212	1414-061-11	COIL, CHOKE 60µH	
L213	1424-255-11	COIL, CHOKE (MOLDE) 10µH	
L214	1408-966-21	INDUCTOR 4.7µH	
		<IC LINK>	
PS101	⚠1532-605-11	LINK, IC ICP-N10 0.4A 150V	
		<TRANSISTOR>	
Q101	8-729-930-91	TRANSSITOR IRF740	
Q102	8-729-930-91	TRANSSITOR IRF740	
Q103	8-729-930-91	TRANSSITOR IRF740	
Q104	8-729-930-91	TRANSSITOR IRF740	
Q105	8-729-140-93	TRANSISTOR 2SB733-34	
Q106	8-729-140-93	TRANSISTOR 2SB733-34	
Q107	8-729-802-08	TRANSISTOR 2SC3150	
Q108	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q201	8-729-821-53	TRANSISTOR 2SC3042-N	
Q202	8-729-105-97	TRANSISTOR 2SA1156-2K	
Q203	8-729-175-22	TRANSISTOR 2SC2752-L	
Q204	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q205	8-729-140-93	TRANSISTOR 2SB733-34	
Q206	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q207	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q208	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q209	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q210	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q211	8-729-119-76	TRANSISTOR 2SA1175-HFE	

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M

REF.NO.	PART NO.	DESCRIPTION			REMARK
Q212	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q213	8-729-322-38	TRANSISTOR 2SK975			
Q214	8-729-322-38	TRANSISTOR 2SK975			
Q219	8-729-119-78	TRANSISTOR 2SC2785-HFE			
		<RESISTOR>			
R103	1247-694-11	CARBON	33	5%	1/4W F
R104	1247-694-11	CARBON	33	5%	1/4W F
R105	1247-694-11	CARBON	33	5%	1/4W F
R106	1247-694-11	CARBON	33	5%	1/4W F
R107	1249-421-11	CARBON	2.2K	5%	1/4W
R108	1249-421-11	CARBON	2.2K	5%	1/4W
R109	1205-622-00	WIREWOUND	33	5%	5W F
R110	1205-622-00	WIREWOUND	33	5%	5W F
R112	1247-897-11	CARBON	560K	5%	1/4W
R113	1247-897-11	CARBON	560K	5%	1/4W
R114	1215-902-11	METAL OXIDE	47K	5%	2W F
R115	1215-902-11	METAL OXIDE	47K	5%	2W F
R116	1260-093-11	CARBON	330	5%	1/2W
R118	1249-401-11	CARBON	47	5%	1/4W
R119	1260-093-11	CARBON	330	5%	1/2W
R120	1249-393-11	CARBON	10	5%	1/4W
R121	1249-389-11	CARBON	4.7	5%	1/4W
R201	1215-903-11	METAL OXIDE	68K	5%	2W F
R202	1249-429-11	CARBON	10K	5%	1/4W
R203	1249-441-11	CARBON	100K	5%	1/4W
R204	1249-441-11	CARBON	100K	5%	1/4W
R205	1247-807-31	CARBON	100	5%	1/4W
R206	1249-425-11	CARBON	4.7K	5%	1/4W
R207	1215-477-00	METAL	220K	1%	1/4W
R208	1215-477-00	METAL	220K	1%	1/4W
R209	1215-438-00	METAL	5.1K	1%	1/4W
R210	1215-411-00	METAL	390	1%	1/4W
R211	1247-897-11	CARBON	560K	5%	1/4W
R212	1249-429-11	CARBON	10K	5%	1/4W
R213	1249-426-11	CARBON	5.6K	5%	1/4W
R214	1249-425-11	CARBON	4.7K	5%	1/4W
R215	1249-441-11	CARBON	100K	5%	1/4W
R216	1249-421-11	CARBON	2.2K	5%	1/4W
R217	1249-421-11	CARBON	2.2K	5%	1/4W
R218	1247-807-31	CARBON	100	5%	1/4W
R219	1260-095-11	CARBON	470	5%	1/2W
R220	1260-095-11	CARBON	470	5%	1/2W
R221	1249-417-11	CARBON	1K	5%	1/4W
R222	1249-417-11	CARBON	1K	5%	1/4W
R223	1249-414-11	CARBON	560	5%	1/4W
R224	1249-403-11	CARBON	68	5%	1/4W
R225	1215-437-00	METAL	4.7K	1%	1/4W
R226	1249-435-11	CARBON	33K	5%	1/4W
R227	1247-903-00	CARBON	1M	5%	1/4W
R228	1247-897-11	CARBON	560K	5%	1/4W
R229	1247-863-91	CARBON	22K	5%	1/4W
R230	1247-807-31	CARBON	100	5%	1/4W
R231	1215-485-00	METAL	470K	1%	1/4W
R232	1215-429-00	METAL	2.2K	1%	1/4W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R233	1215-429-00	METAL	2.2K	1%	1/4W
R234	1215-429-00	METAL	2.2K	1%	1/4W
R235	1215-473-00	METAL	150K	1%	1/4W
R236	1215-435-00	METAL	3.9K	1%	1/4W
R237	1215-477-00	METAL	220K	1%	1/4W
R238	1247-895-00	CARBON	470K	5%	1/4W
R239	1215-474-00	METAL	160K	1%	1/4W
R240	1215-438-00	METAL	5.1K	1%	1/4W
R241	1215-443-00	METAL	8.2K	1%	1/4W
R242	1215-485-00	METAL	470K	1%	1/4W
R243	1249-426-11	CARBON	5.6K	5%	1/4W
R244	1249-426-11	CARBON	5.6K	5%	1/4W
R245	1249-421-11	CARBON	2.2K	5%	1/4W
R246	1249-426-11	CARBON	5.6K	5%	1/4W
R247	1249-417-11	CARBON	1K	5%	1/4W
R248	1249-437-11	CARBON	47K	5%	1/4W
R249	1249-437-11	CARBON	47K	5%	1/4W
R250	1249-437-11	CARBON	47K	5%	1/4W
R251	1249-437-11	CARBON	47K	5%	1/4W
R252	1249-436-11	CARBON	39K	5%	1/4W
R253	1216-379-11	METAL OXIDE	6.8	5%	2W F
R260	1215-890-11	METAL OXIDE	470	5%	2W F
R261	1249-417-11	CARBON	1K	5%	1/4W
R262	1249-429-11	CARBON	10K	5%	1/4W
R263	1249-437-11	CARBON	47K	5%	1/4W
R264	1249-426-11	CARBON	5.6K	5%	1/4W
R265	1249-426-11	CARBON	5.6K	5%	1/4W
R266	1249-417-11	CARBON	1K	5%	1/4W
R267	1249-415-11	CARBON	680	5%	1/4W
R268	1249-429-11	CARBON	10K	5%	1/4W
R269	1249-429-11	CARBON	10K	5%	1/4W
R270	1249-429-11	CARBON	10K	5%	1/4W
R271	1249-429-11	CARBON	10K	5%	1/4W
R272	1205-624-00	WIREWOUND	100	5%	5W F
R273	1215-863-11	METAL OXIDE	100	5%	1W F
R274	1205-624-00	WIREWOUND	100	5%	5W F
R275	1205-624-00	WIREWOUND	100	5%	5W F
R276	1249-437-11	CARBON	47K	5%	1/4W
R277	1249-429-11	CARBON	10K	5%	1/4W
R278	1249-429-11	CARBON	10K	5%	1/4W
R279	1215-427-00	METAL	1.8K	1%	1/4W
R280	1215-413-00	METAL	470	1%	1/4W
R281	1216-379-11	METAL OXIDE	6.8	5%	2W F
R282	1249-411-11	CARBON	330	5%	1/4W
		<TRANSFORMER>			
T101	⚠ 1-426-640-11	TRANSFORMER, CONVERTER (SRT)			
T102	1421-819-11	TRANSFORMER, CURRENT			
T103	⚠ 1437-188-11	TRANSFORMER, DRIVE			
T104	⚠ 1437-188-11	TRANSFORMER, DRIVE			
T105	⚠ 1-426-641-11	TRANSFORMER, CONVERTER (SRT)			
		<VARIABLE RESISTOR>			
VR201	1241-076-11	RES, ADJ, CARBON	1K		

PF

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REF.NO.	PART NO.	DESCRIPTION	REMARK
**			
		PF BOARD **************	
	⚠1-251-185-11	POWER BLOCK	
	1-410-396-41	FERRITE BEAD INDUCTOR	
	*1-533-213-31	HOLDER, FUSE	
	*2-434-297-01	BRACKET (DP-UR17)	
	3-899-248-11	SCREW (M3X8)	
	4-560-217-01	RUBBER (1047) (B), INSULATING	
		<CAPACITOR>	
C151	⚠1-137-110-11	FILM 0.47µF	20% 250V (AEP)
C152	⚠1-161-741-81	CERAMIC 0.001µF	10% 400V (U/C)
C152	⚠1-162-599-81	CERAMIC 0.0047µF	20% 400V (AEP)
C153	⚠1-161-741-81	CERAMIC 0.001µF	10% 400V (U/C)
C153	⚠1-162-599-81	CERAMIC 0.0047µF	20% 400V (AEP)
C154	⚠1-161-741-81	CERAMIC 0.001µF	10% 400V (U/C)
C155	⚠1-137-110-11	FILM 0.47µF	20% 250V
C156	⚠1-161-741-81	CERAMIC 0.001µF	10% 400V (U/C)
C156	⚠1-161-742-81	CERAMIC 0.0022µF	20% 400V (AEP)
C157	⚠1-161-741-81	CERAMIC 0.001µF	10% 400V (U/C)
C157	⚠1-161-742-81	CERAMIC 0.0022µF	20% 400V
C158	⚠1-161-741-81	CERAMIC 0.001µF	10% 400V (U/C)
C159	⚠1-137-110-11	FILM 0.47µF	20% 250V
C160	1-136-425-11	FILM 4.7µF	10% 250V (U/C)
C160	1-137-479-11	FILM 1µF	10% 400V (AEP)
C161	1-137-479-11	FILM 1µF	10% 400V
C162	1-107-805-11	ELECT 820µF	20% 400V
C165	1-162-599-12	CERAMIC 0.0047µF	20% 400V
C166	1-136-165-00	FILM 0.1µF	5% 50V
C167	1-130-471-00	MYLAR 0.001µF	5% 50V
C168	1-162-117-00	CERAMIC 100pF	10% 500V
C169	1-136-165-00	FILM 0.1µF	5% 50V
C170	1-136-173-00	FILM 0.47µF	5% 50V
C171	1-136-169-00	FILM 0.22µF	5% 50V
C172	1-130-471-00	FILM 0.001µF	5% 50V
C173	1-136-165-00	FILM 0.1µF	5% 50V
C174	1-136-165-00	FILM 0.1µF	5% 50V
C176	⚠1-161-741-81	CERAMIC 0.001µF	10% 400V (U/C)
C176	⚠1-161-973-81	CERAMIC 220pF	10% 400V (AEP)
C177	⚠1-161-973-81	CERAMIC 220pF	10% 400V (AEP)
C178	⚠1-161-741-81	CERAMIC 0.001µF	10% 400V (U/C)
C179	1-102-030-00	CERAMIC 330pF	10% 500V
C181	1-136-165-00	FILM 0.1µF	5% 50V
C182	1-124-903-11	ELECT 1µF	20% 50V
C183	1-124-478-11	ELECT 100µF	20% 25V
C184	⚠1-137-109-11	FILM 0.22µF	20% 250V (U/C)
C185	⚠1-137-109-11	FILM 0.22µF	20% 250V (AEP)
		<CONNECTOR>	
CN151	*1-535-419-00	TAB, FASTEN (PCB)	
CN152	*1-535-419-00	TAB, FASTEN (PCB)	
CN153	*1-564-242-00	PIN, CONNECTOR 5P	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<DIODE>	
D151	⚠8-719-033-58	DIODE RBV-1506	
D152	8-719-912-20	DIODE 1SS120	
D153	8-719-044-70	DIODE S16L60	
D154	8-719-044-70	DIODE S16L60	
D156	8-719-510-02	DIODE D1NS4	
D158	8-719-510-02	DIODE D1NS4	
D159	8-719-110-04	DIODE RD7.5ESB3	
D160	8-719-510-02	DIODE D1NS4	
D161	8-719-107-87	THYRISTOR 03P2M	
D162	8-719-110-03	DIODE RD7.5ESB2	
D163	8-719-510-02	DIODE D1NS4	
D170	8-719-110-56	DIODE RD22ESB1	
D171	8-719-110-56	DIODE RD22ESB1	
D172	8-719-510-02	DIODE D1NS4	
		<FUSE>	
F151	⚠1-576-048-11	FUSE, GLASS TUBE	10A/125V (U/C)
F151	⚠1-576-233-41	FUSE (H.B.C.)	6.3A/250V (AEP)
		<IC>	
IC151	8-759-191-54	IC UC3854N	
		<COIL>	
L151	⚠1-426-635-11	TRANSFORMER, LINE FILTER	
L152	⚠1-426-636-11	TRANSFORMER, LINE FILTER	
L153	⚠1-403-675-11	COIL, CHOKE 34.0µH	(U/C)
L153	⚠1-409-648-11	COIL, CHOKE 140µH	(AEP)
L154	⚠1-403-675-11	COIL, CHOKE 34.0µH	(U/C)
L154	⚠1-409-648-11	COIL, CHOKE 140µH	(AEP)
L155	1-403-673-11	COIL, CHOKE 480µH	
		<TRANSISTOR>	
Q151	1-807-858-11	TRANSISTOR IRFP451	
Q152	1-807-858-11	TRANSISTOR IRFP451	
Q153	8-729-140-96	TRANSISTOR 2SD774-34	
Q154	8-729-140-97	TRANSISTOR 2SB734-34	
Q155	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		<RESISTOR>	
R151	⚠1-202-847-51	SOLID 560K	10% 1/2W
R152	⚠1-217-783-11	FUSIBLE 4.7	5% 5W F
R154	1-216-381-11	METAL OXIDE 0.22	5% 3W F
R155	1-216-381-11	METAL OXIDE 0.22	5% 3W F
R156	1-216-381-11	METAL OXIDE 0.22	5% 3W F
R157	1-215-902-11	METAL OXIDE 47K	5% 2W F
R158	1-215-902-11	METAL OXIDE 47K	5% 2W F
R159	1-249-441-11	CARBON 100K	5% 1/4W
R160	1-247-688-11	CARBON 10	5% 1/4W F
R161	1-249-381-11	CARBON 1	5% 1/4W
R162	1-249-441-11	CARBON 100K	5% 1/4W
R163	1-247-688-11	CARBON 10	5% 1/4W F
R164	1-249-381-11	CARBON 1	5% 1/4W
R165	1-247-889-00	CARBON 270K	5% 1/4W

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

PF

REF.NO.	PART NO.	DESCRIPTION			REMARK
R166	1-247-889-00	CARBON	270K	5%	1/4W
R167	1-215-447-00	METAL	12K	1%	1/4W
R168	1-249-441-11	CARBON	100K	5%	1/4W
R169	1-249-923-11	CARBON	1K	5%	1/4W F
R170	1-215-438-00	METAL	5.1K	1%	1/4W
R171	1-247-863-91	CARBON	22K	5%	1/4W
R172	1-249-425-11	CARBON	4.7K	5%	1/4W
R173	1-249-417-11	CARBON	1K	5%	1/4W
R174	1-249-427-11	CARBON	6.8K	5%	1/4W
R175	1-247-887-00	CARBON	220K	5%	1/4W
R176	1-260-135-11	CARBON	1M	5%	1/2W
R177	1-260-135-11	CARBON	1M	5%	1/2W
R178	1-249-441-11	CARBON	100K	5%	1/4W
R179	1-247-863-91	CARBON	22K	5%	1/4W
R180	1-215-449-00	METAL	15K	1%	1/4W
R181	1-247-883-00	CARBON	150K	5%	1/4W
R182	1-215-862-11	METAL OXIDE	68	5%	1W F
R183	1-249-417-11	CARBON	1K	5%	1/4W
R184	1-249-417-11	CARBON	1K	5%	1/4W
R185	1-249-427-11	CARBON	6.8K	5%	1/4W
R190	1-249-441-11	CARBON	100K	5%	1/4W
R191	1-216-381-11	METAL OXIDE	0.22	5%	3W F
R192	1-249-437-11	CARBON	47K	5%	1/4W
R193	1-249-425-11	CARBON	4.7K	5%	1/4W
R194 ⚠	1-202-847-51	SOLID	560K	10%	1/2W (U/C)
R195	1-247-903-00	CARBON	1M	5%	1/4W
	<RELAY>				
*RY151 ⚠	1-515-868-11	RELAY			
	<VARIABLE RESISTOR>				
VR151	1-241-076-11	RES, ADJ, CARBON	1K		
	<VARISTOR>				
VZ151 ⚠	1-809-581-11	VARISTOR			
	<MISCELLANEOUS> ***************************				
	1-251-183-11	CONTROL BLOCK			
	1-251-184-11	WIRE BLOCK			
	1-698-331-11	FAN, DC			

9-978-424-81

Sony Corporation
B&I Systems Company

English
95AJ05209-1
Printed in Japan
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RVP-6010Q/6010QM

RM-1271

SONY®

SERVICE MANUAL

US Model
Canadian Model
RVP-6010Q
Chassis No. SCC-D83D-A

AEP Model
RVP-6010QM
Chassis No. SCC-D82D-A

CORRECTION-1

Correct this service manual as shown below.
File this supplement with the service manual.

INTRODUCTION

Correct the form of parts.

☛ : **Indicates Corrected portion**

MICROFILM

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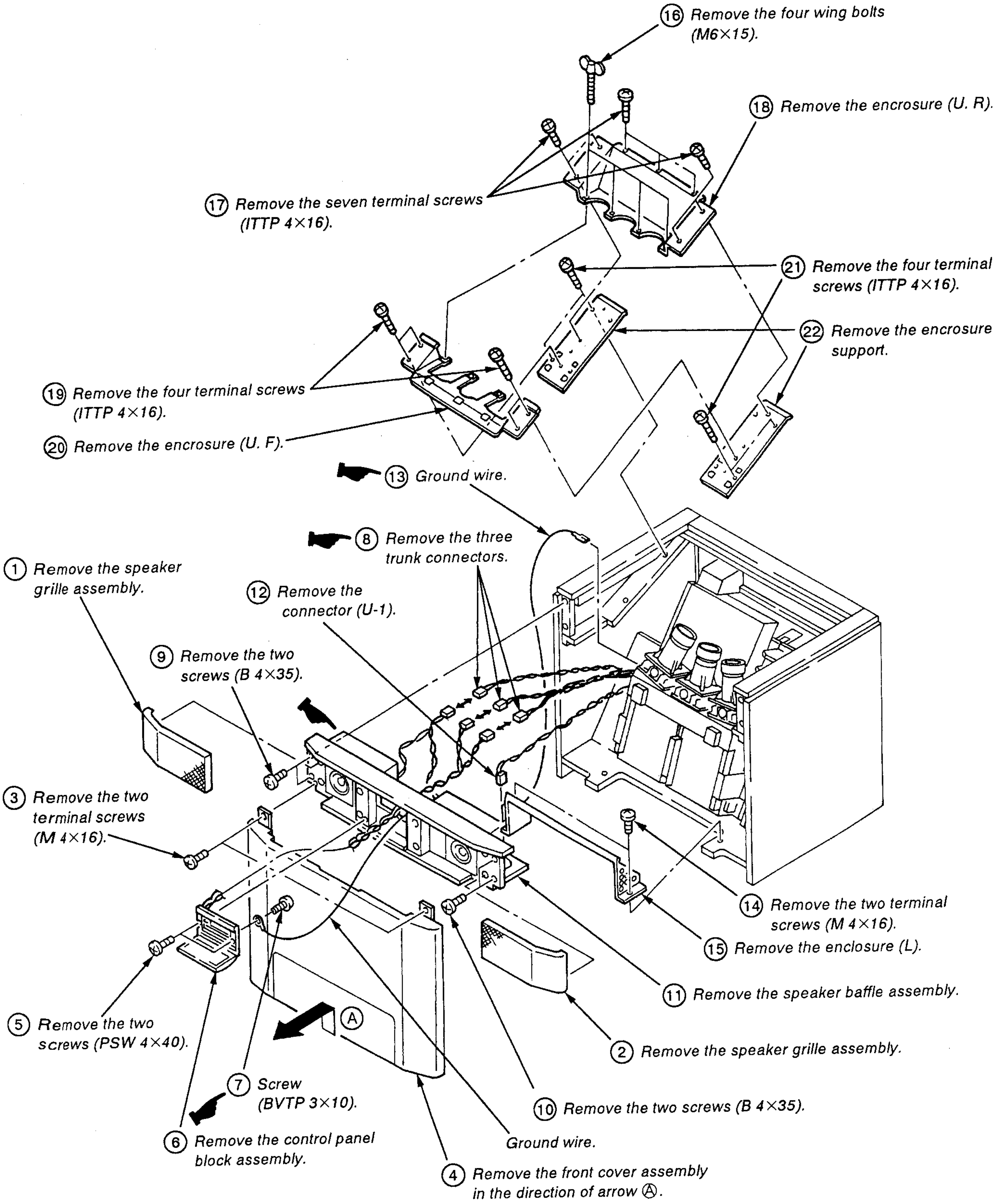
SECTION 2
DISASSEMBLY (See page 22–28)

2-2. REMOVE THE FRONT COVER AND ENCLOSURE



① *Remove the speaker grille assembly.*

② *Remove the speaker grille assembly.*

③ *Remove the two terminal screws (M 4×16).*

④ *Remove the front cover assembly in the direction of arrow Ⓐ.*

⑤ *Remove the two screws (PSW 4×40).*

⑥ *Remove the control panel block assembly.*

⑦ *Screw (BVTP 3×10).*

⑧ *Remove the three trunk connectors.*

⑨ *Remove the two screws (B 4×35).*

⑩ *Remove the two screws (B 4×35).*

Ground wire.

⑪ *Remove the speaker baffle assembly.*

⑫ *Remove the connector (U-1).*

⑬ *Ground wire.*

⑭ *Remove the two terminal screws (M 4×16).*

⑮ *Remove the enclosure (L).*

⑯ *Remove the four wing bolts (M6×15).*

⑰ *Remove the seven terminal screws (ITTP 4×16).*

⑱ *Remove the encrosure (U. R).*

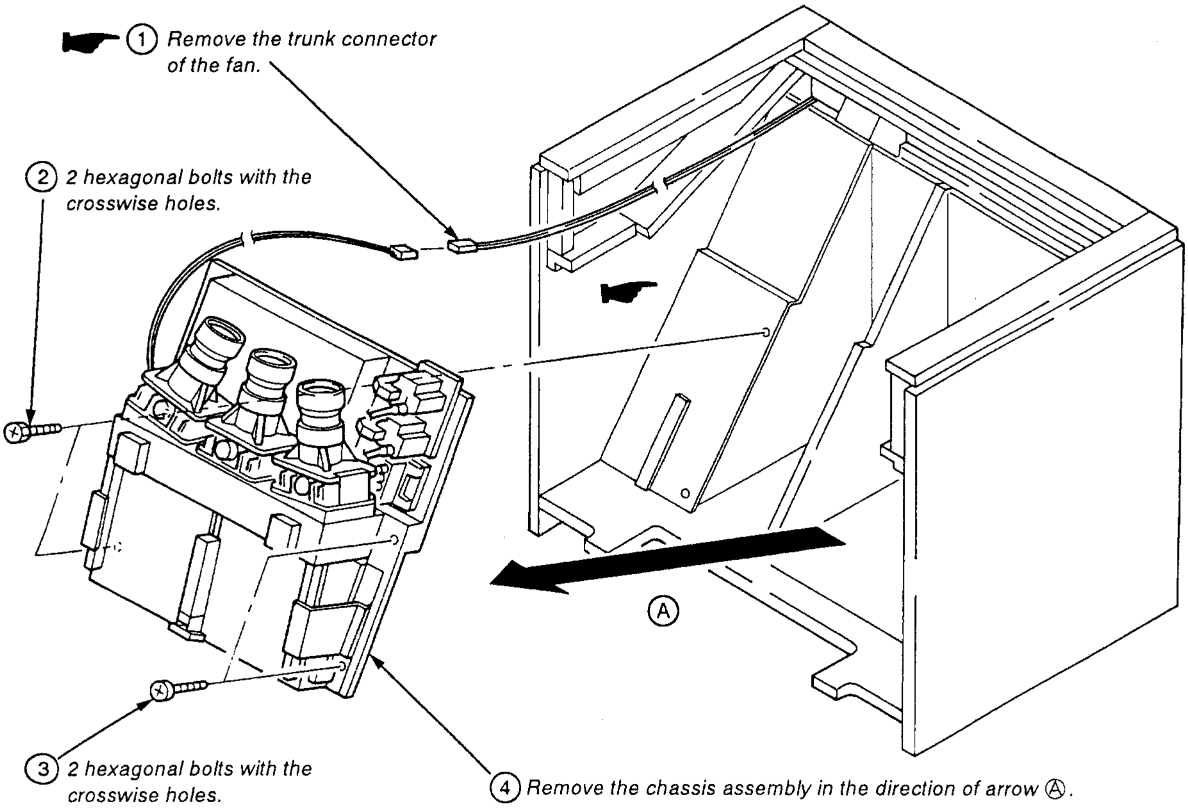
⑲ *Remove the four terminal screws (ITTP 4×16).*

⑳ *Remove the encrosure (U. F).*

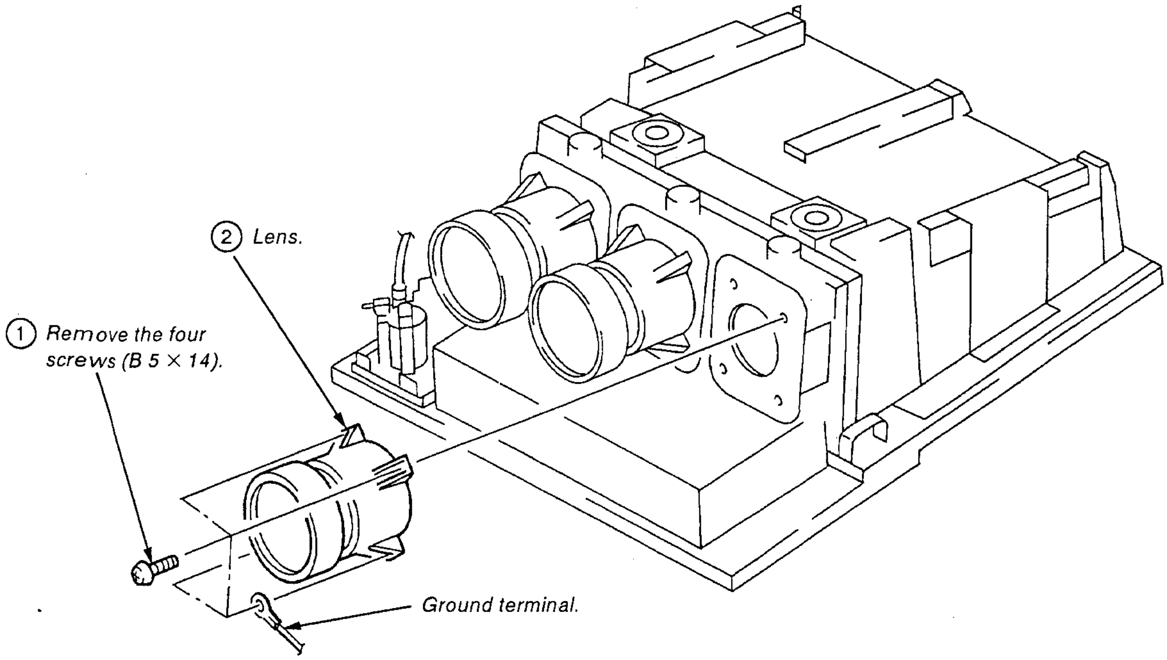
㉑ *Remove the four terminal screws (ITTP 4×16).*

㉒ *Remove the encrosure support.*

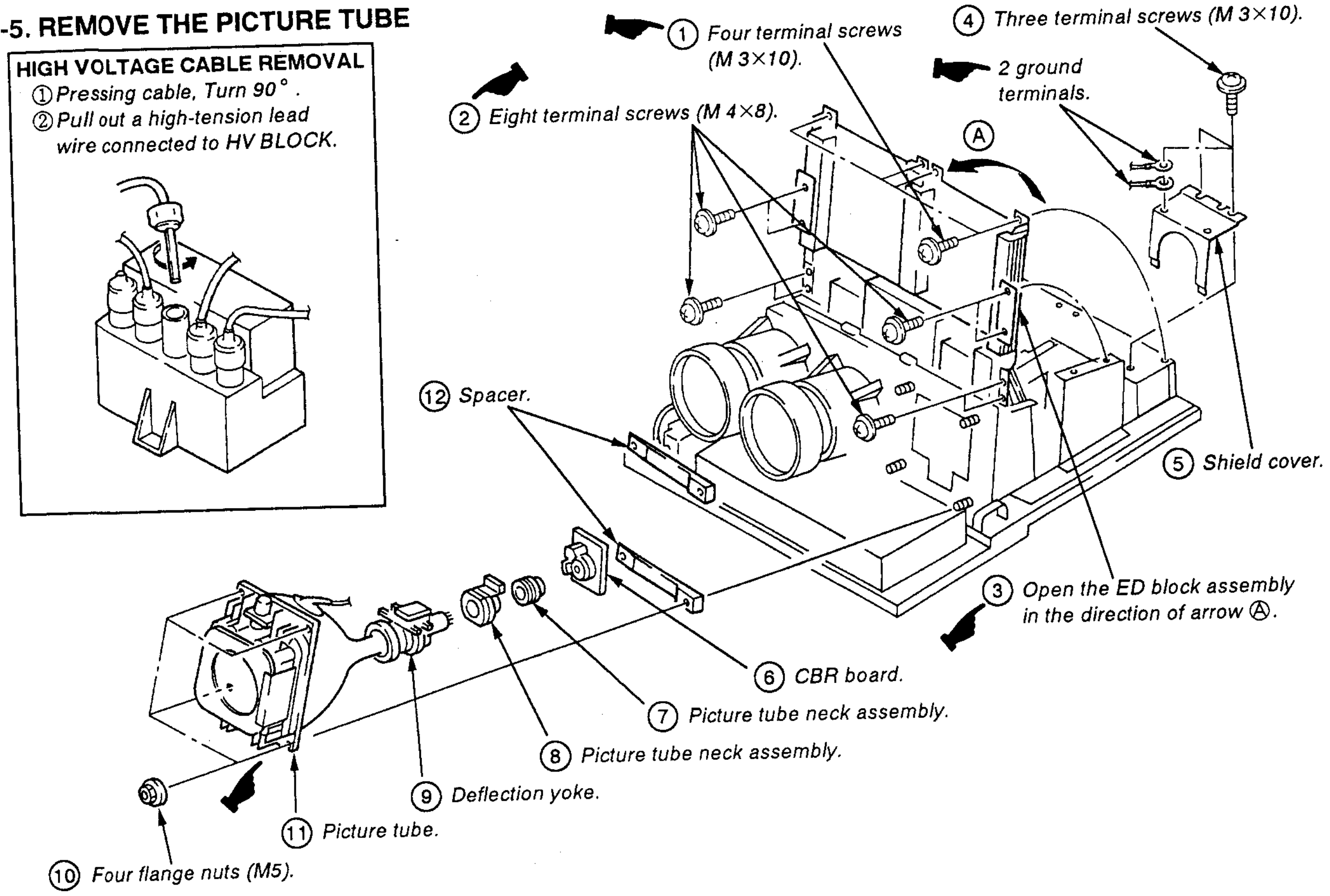
2-3. REMOVE THE CHASSIS ASSEMBLY


① *Remove the trunk connector of the fan.*
② *2 hexagonal bolts with the crosswise holes.*
Ⓐ
③ *2 hexagonal bolts with the crosswise holes.*
④ *Remove the chassis assembly in the direction of arrow Ⓐ.*

2-4. REMOVE THE LENS


② *Lens.*
① *Remove the four screws (B 5 × 14).*
Ground terminal.

2-5. REMOVE THE PICTURE TUBE

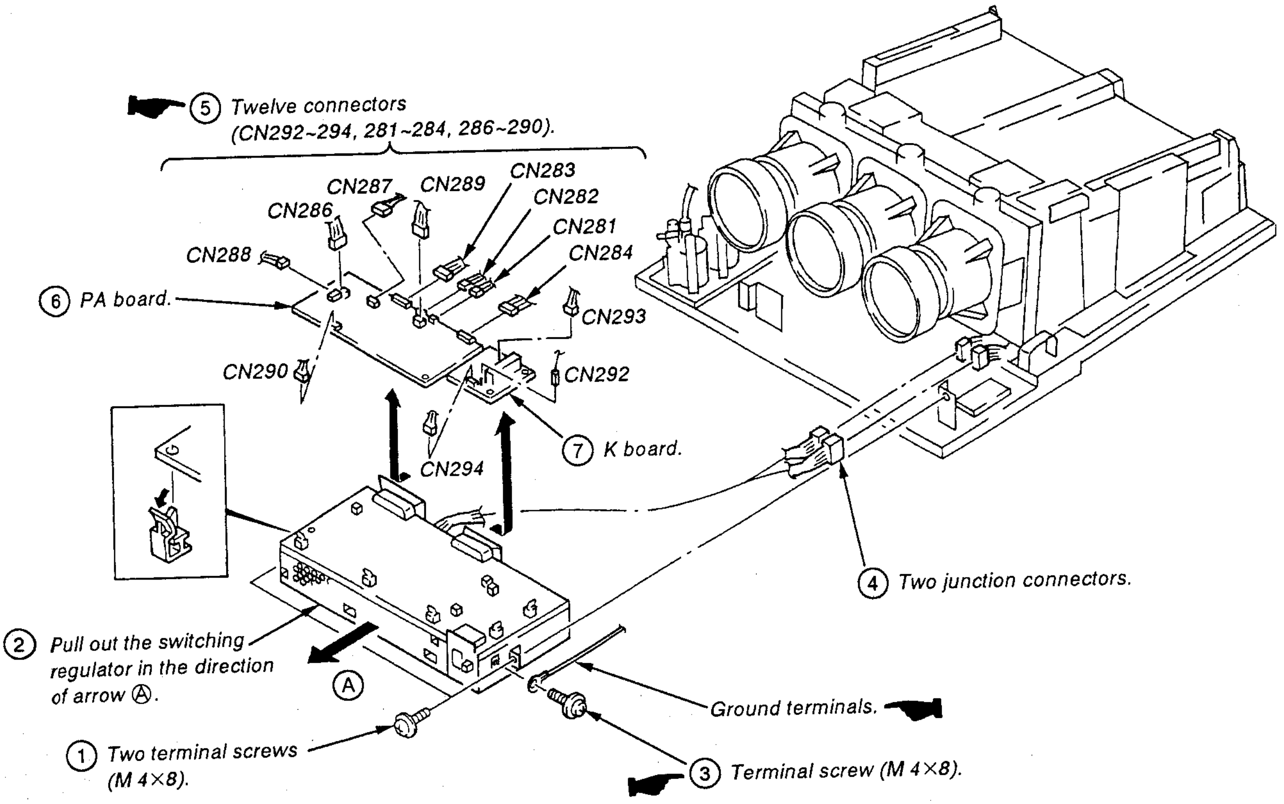


HIGH VOLTAGE CABLE REMOVAL

① Pressing cable, Turn 90°.
② Pull out a high-tension lead wire connected to HV BLOCK.

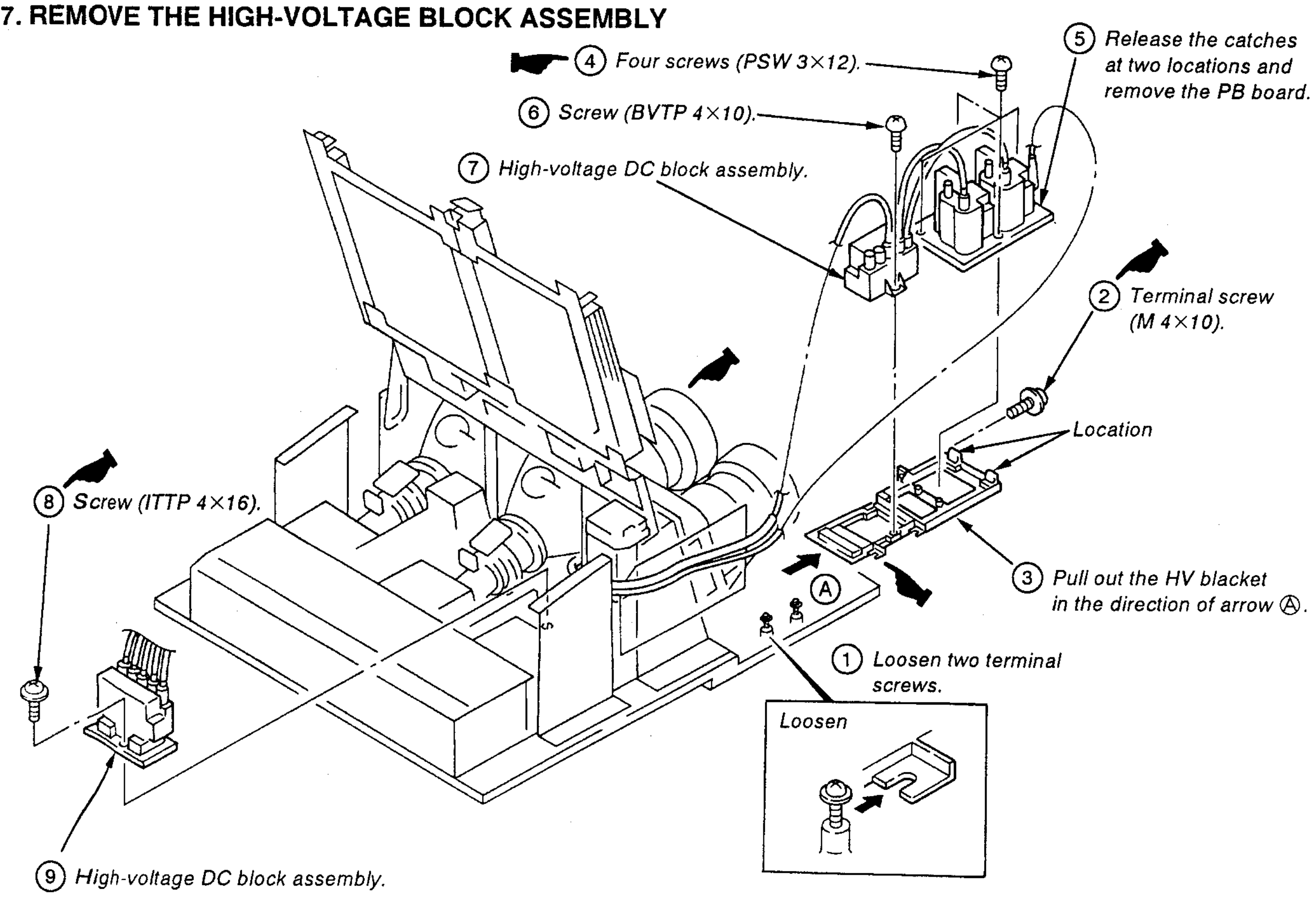
① Four terminal screws (M 3×10).
② Eight terminal screws (M 4×8).
④ Three terminal screws (M 3×10).
2 ground terminals.
Ⓐ
⑫ Spacer.
⑤ Shield cover.
③ Open the ED block assembly in the direction of arrow Ⓐ.
⑥ CBR board.
⑦ Picture tube neck assembly.
⑧ Picture tube neck assembly.
⑨ Deflection yoke.
⑪ Picture tube.
⑩ Four flange nuts (M5).

2-6. REMOVE THE POWER BLOCK AND PA, K BOARDS



⑤ Twelve connectors (CN292~294, 281~284, 286~290).
CN287
CN289
CN283
CN282
CN286
CN281
CN288
CN284
⑥ PA board.
CN293
CN290
CN292
CN294
⑦ K board.
④ Two junction connectors.
② Pull out the switching regulator in the direction of arrow Ⓐ.
Ⓐ
Ground terminals.
① Two terminal screws (M 4×8).
③ Terminal screw (M 4×8).

2-7. REMOVE THE HIGH-VOLTAGE BLOCK ASSEMBLY



① Loosen two terminal screws.

② Terminal screw (M 4×10).

③ Pull out the HV blacket in the direction of arrow Ⓐ.

④ Four screws (PSW 3×12).

⑤ Release the catches at two locations and remove the PB board.

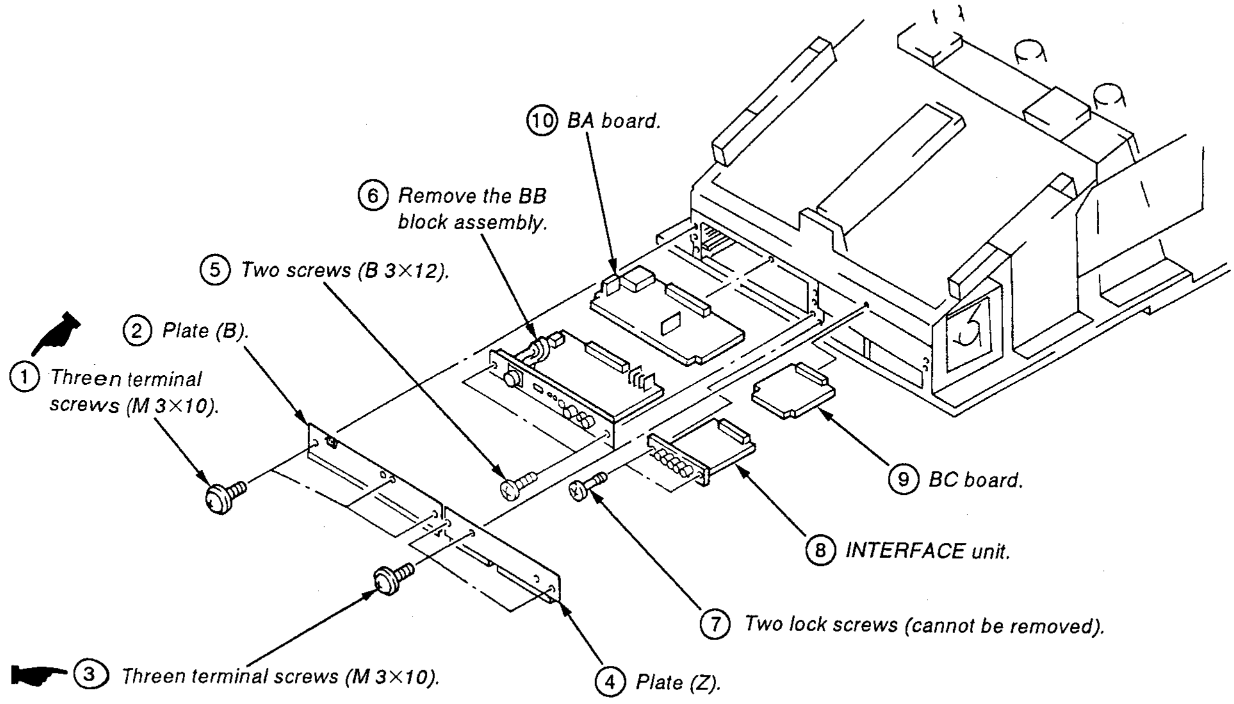
⑥ Screw (BVTP 4×10).

⑦ High-voltage DC block assembly.

⑧ Screw (ITTP 4×16).

⑨ High-voltage DC block assembly.

2-8. REMOVE THE INTERFACE UNIT, BA, BC AND BB BLOCK ASSEMBLY



① Threen terminal screws (M 3×10).

② Plate (B).

③ Threen terminal screws (M 3×10).

④ Plate (Z).

⑤ Two screws (B 3×12).

⑥ Remove the BB block assembly.

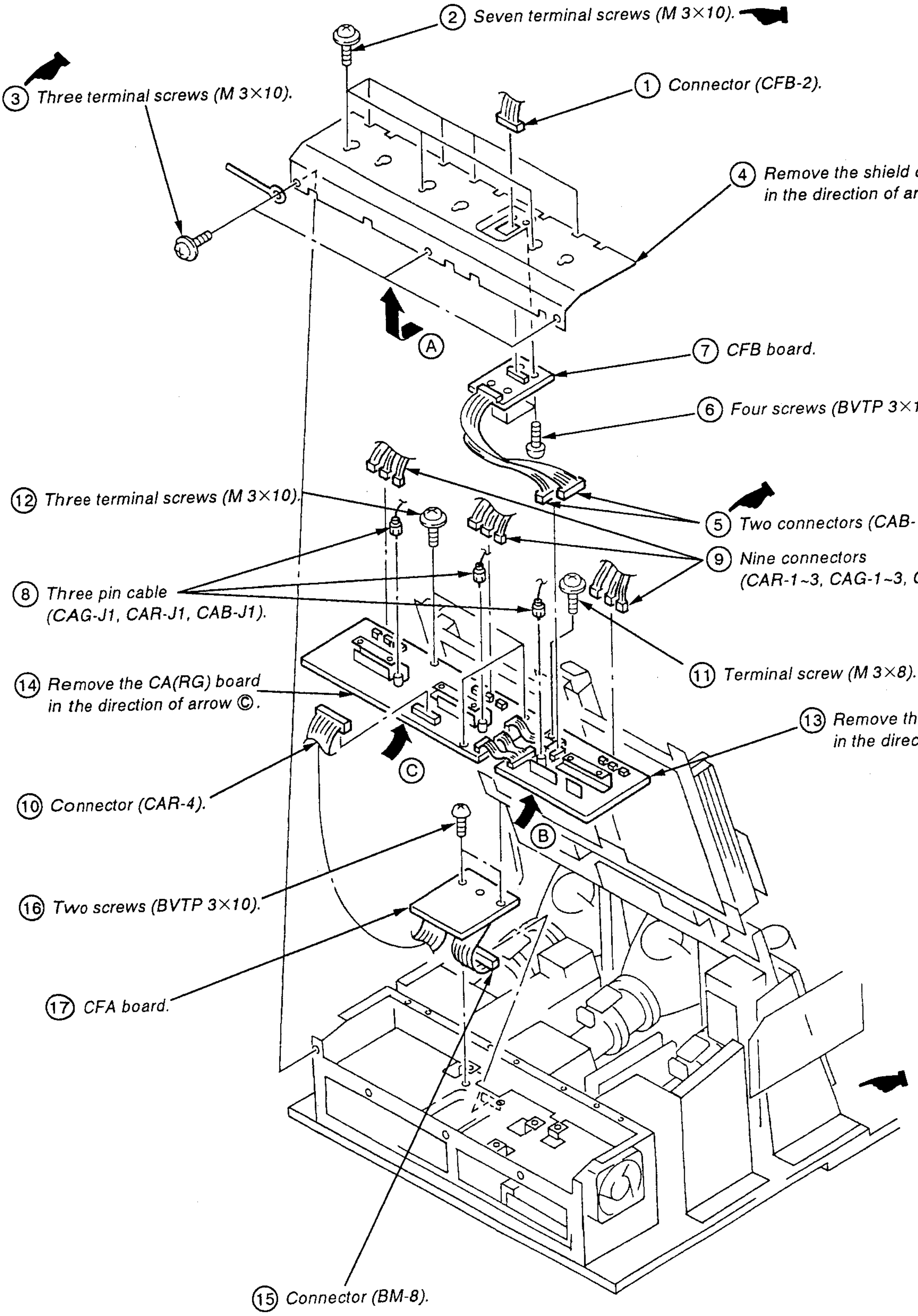
⑦ Two lock screws (cannot be removed).

⑧ INTERFACE unit.

⑨ BC board.

⑩ BA board.

2-9. REMOVE THE CFA, CFB, CA(RG) and CA(B) BOARDS



① *Connector (CFB-2).*

② *Seven terminal screws (M 3×10).*

③ *Three terminal screws (M 3×10).*

④ *Remove the shield cover in the direction of arrow Ⓐ.*

⑤ *Two connectors (CAB-7, 8).*

⑥ *Four screws (BVTP 3×10).*

⑦ *CFB board.*

⑧ *Three pin cable (CAG-J1, CAR-J1, CAB-J1).*

⑨ *Nine connectors (CAR-1~3, CAG-1~3, CAB-1~3).*

⑩ *Connector (CAR-4).*

⑪ *Terminal screw (M 3×8).*

⑫ *Three terminal screws (M 3×10).*

⑬ *Remove the CA(B) board in the direction of arrow Ⓑ.*

⑭ *Remove the CA(RG) board in the direction of arrow Ⓒ.*

⑮ *Connector (BM-8).*

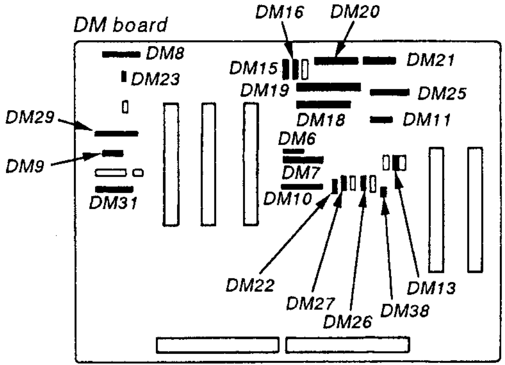
⑯ *Two screws (BVTP 3×10).*

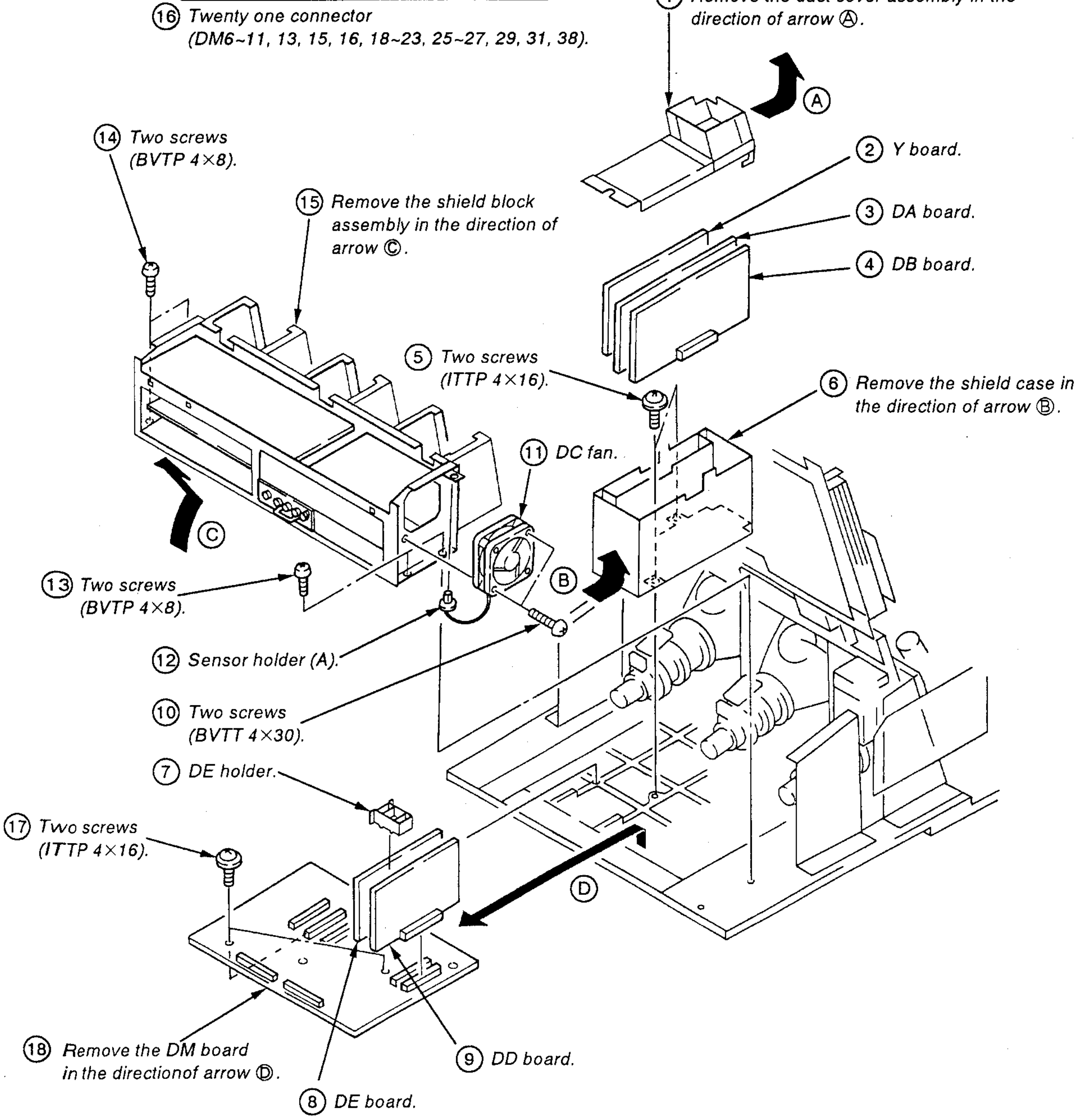
⑰ *CFA board.*

2-10. REMOVE THE Y, DA, DB, DM, DD AND DE BOARDS

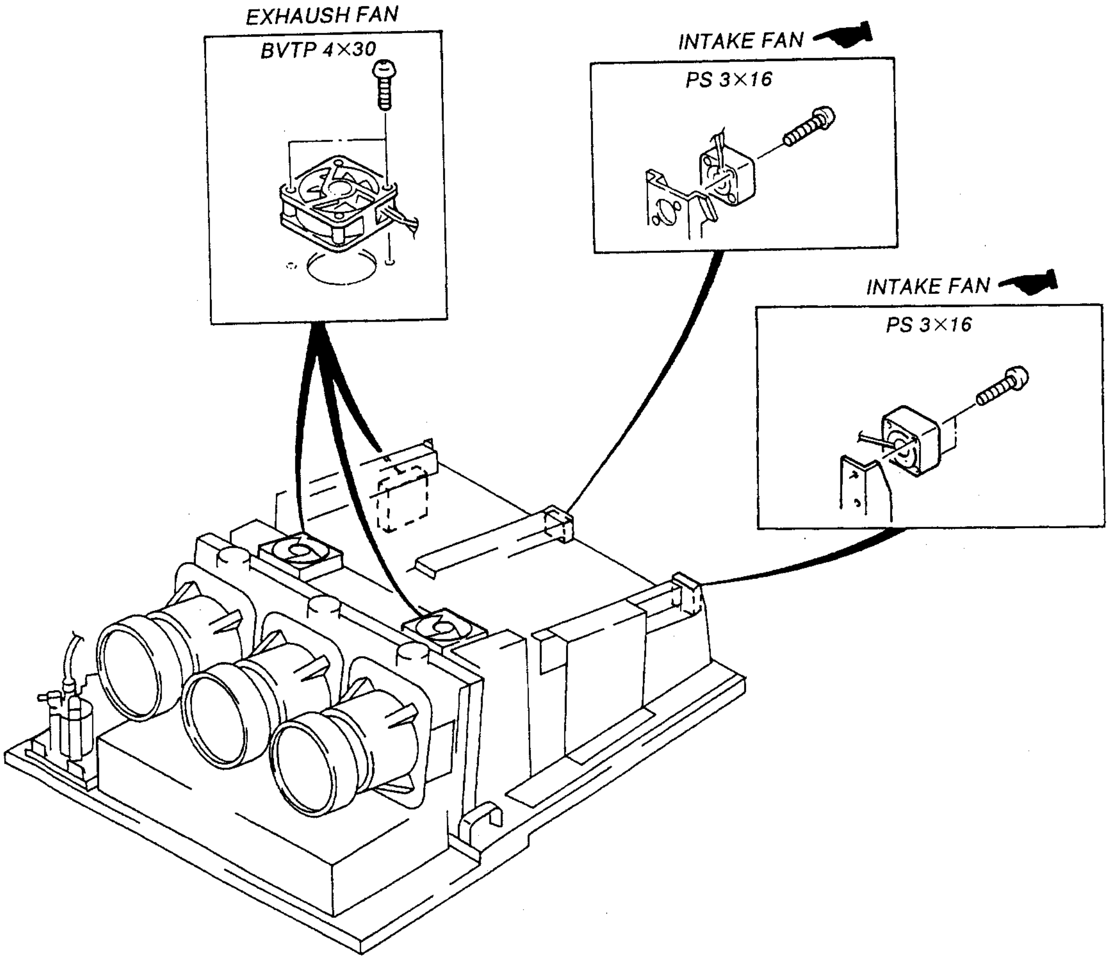
Note: • Open the ED block assembly of the section 2-5. step ③, remove the sheild cover of step ⑤ and remove CBR, CBG and CBB boards.

- Conduct the section 2-8. step ①, ②, ⑤ and remove BB block assembly at step ⑥.
- Remove the parts at the section 2-9. step ① through ⑨.


DM board
DM16
DM20
DM8
DM23
DM15
DM21
DM19
DM25
DM29
DM18
DM11
DM6
DM9
DM7
DM31
DM10
DM22
DM13
DM27
DM38
DM26


⑯ Twenty one connector (DM6~11, 13, 15, 16, 18~23, 25~27, 29, 31, 38).
① Remove the dust cover assembly in the direction of arrow Ⓐ.
Ⓐ
② Y board.
③ DA board.
④ DB board.
⑭ Two screws (BVTP 4×8).
⑮ Remove the shield block assembly in the direction of arrow Ⓒ.
⑤ Two screws (ITTP 4×16).
⑥ Remove the shield case in the direction of arrow Ⓑ.
⑪ DC fan.
Ⓒ
Ⓑ
⑬ Two screws (BVTP 4×8).
⑫ Sensor holder (A).
⑩ Two screws (BVTT 4×30).
⑦ DE holder.
⑰ Two screws (ITTP 4×16).
Ⓓ
⑱ Remove the DM board in the directionof arrow Ⓓ.
⑨ DD board.
⑧ DE board.

2-11. ATTACHMENT DIRECTION OF DC FAN


EXHAUSH FAN
BVTP 4×30
INTAKE FAN
PS 3×16
INTAKE FAN
PS 3×16

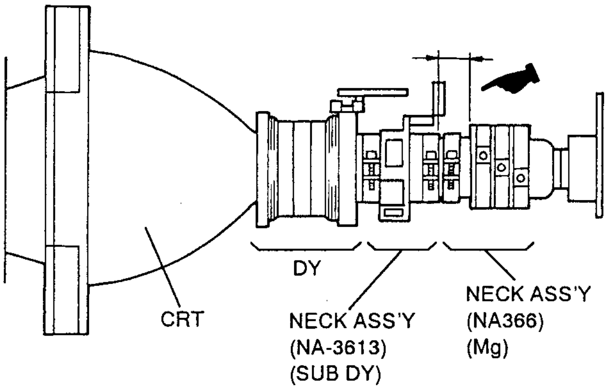
SECTION 4
SET-UP ADJUSTMENTS (See page 37–39)

Note:

- When exchanging CRT, fit tightly DY to CRT, set neck assembly position and adjust.
- Service mode is released when the power is turned OFF.

4-1. NECK ASSEMBLY INSTALLATION

1. Fit DY tightly to CRT funnel first and then tightly fit Sub DY.
2. Temporary install 2-pole and 4-pole magnet assembly adhere to sub DY.
3. Installing CB board.



4-2. DISPLAY INCLINATION ADJUSTMENT BY MAIN DY

1. Turn on the power switch of the set and the power key of the remote commander.

   Push the PAGE key to release from aging
2. Press the TEST key for five seconds, and press the arrow ▲ key to set the service man mode.
3. Press SKEW , and use the ▲ and ▼ keys to set the V direction data of R, G, B to "128" .

R ┌H : - -　　G ┌H : - -　　B ┌H : - -
　└V : 128　　　└V : 128　　　└V : 128

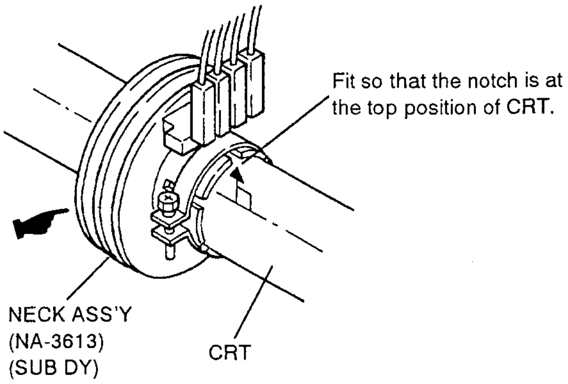
4. Rotate the main DY, and adjust the inclination of the display.
   - If the red CRT has been replaced, output the green and red cross hair patterns, and adjust the horizontal lines of the cross hair pattern to the green CRT which have been adjusted.
   - If the green or blue CRT have been replaced, output the cross hair patterns as above, and output the two colors of the CRT that was replaced and other CRT which have been adjusted, and adjust the horizontal lines of the cross hair pattern to the CRT which have been adjusted.
5. Secure the main DY in place after completing the adjustments.

Note 1. Be sure to adjust the main DY after the V direction data of SKEW has been adjusted to "128" .

Note 2. Adjust so that the horizontal lines of the cross hair pattern coincide. (The vertical lines are adjusted during SKEW adjustments, after the main DY has been adjusted.)

4-3. SUB-DY ADJUSTMENT

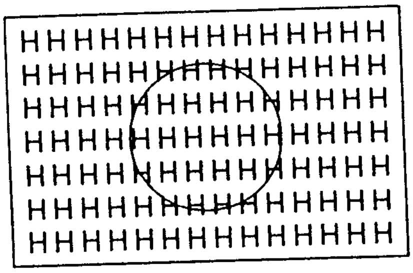
1.Fit to main DY and set at the mechanical center.

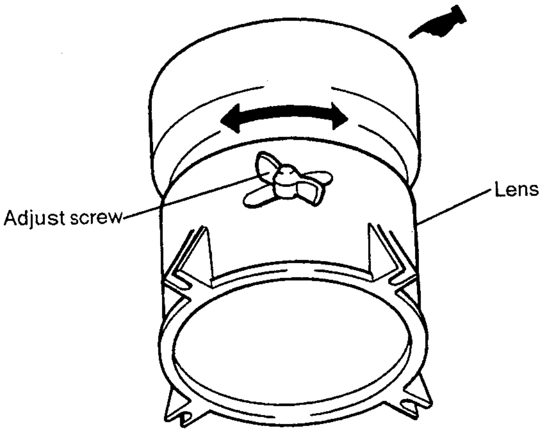


4-4. GREEN LENS FOCUS ADJUSTMENT

1. Use the commander to select an input A.(To set fH=33.4 kHz)
2. Press the [TEST] key for five seconds, and press the [▲] key next to set the service man mode. (Not required when already in the service man mode).
3. Press the [TEST] key, and output the H pattern.
4. Adjust "CONTR" and "BRT" of PICTURE CONTROL, and set CONTR: 50 BRT: 50.
5. Press the CUT OFF [R] and [B] keys, and set to green (single color).
6. Loosen the screw of the main lens of green, rotate the lens so that the H pattern at the center of the screen becomes the clearest, and tighten the screw once more.

* Pay attention to the center of the screen. (Around ○ in the figure below)





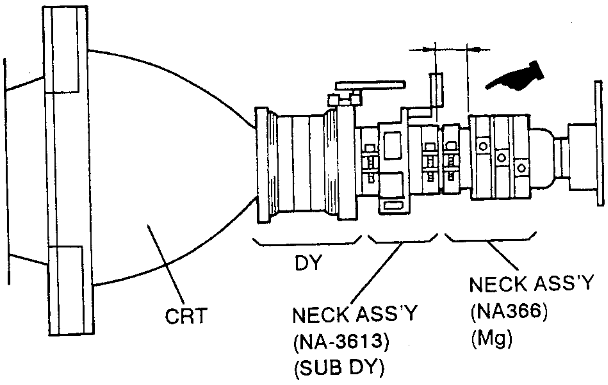
4-5. RED LENS FOCUS ADJUSTMENT

1. Press the CUT OFF [G] and [B] keys of the commander, and set to red (single color).
2. Adjust as in the green lens focus adjustment.

4-6. BLUE LENS FOCUS ADJUSTMENT

1. Press the CUT OFF [R] and [G] keys of the commander, and set to blue (single color).
2. Adjust as in the green lens focus adjustment.

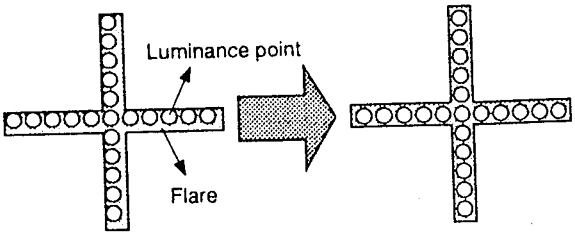
4-7. GREEN 2/4-POLE ADJUSTMENT



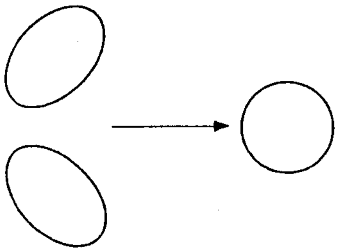
1. Use the commander to select an input A.(To set fH=33.4 kHz)
2. Press the [TEST] key for five seconds, and press the [▲] key to set the service man mode (Not required when already in service man mode).

   Press the [RESET] key, and set CONTR:80, BRT:50.
3. Press the CUT OFF [R] and [B] keys, and set to green (single color).
4. Press the [TEST] key, and output the cross hair pattern.
5. Rotate the green focus VR of the focus pack slightly to the left of the JUST point, and adjust so that there is flare on the cross hair pattern.
6. Adjust the 2-pole magnet so that the luminance point lies at the center of the flare.

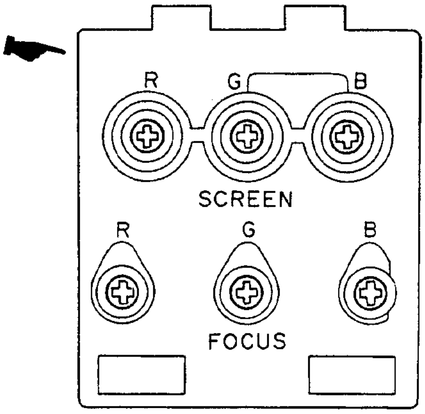
   * Adjust so that the luminance point lies at the center of the flare.



7. Press the TEST key and output the dot pattern.
8. Rotate the green focus VR of the focus pack slightly to the right of the JUST point, and over-focus the dot.
9. Adjust the 4-pole magnet so that the dot becomes round.



10. Repeat steps 4. to 9. and perform tracking as required.
11. Set the focus to JUST.



4-8. RED 2/4-POLE ADJUSTMENT

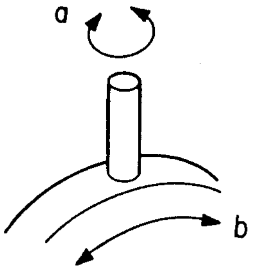
1. Press the CUT OFF G and B keys of the commander and set to red (single color).
2. Perform as in the green 2/4-pole adjustment.

4-9. BLUE 2/4-POLE ADJUSTMENT

Note: To adjust the BLUE FOCUS is anxious to change the W/B therefore do not adjust the FOCUS except replace the CRT.

1. Press the CUT OFF R and G keys of the commander and set to blue (single color).
2. Perform as in the green 2/4-pole adjustment.

Note: Method of adjusting the 2/4-pole



a · · · · · Modulates the power of the magnetic force
b · · · · · Modulates the direction of the magnetic force.

To adjust the 2-pole or 4-pole, rotate the knob in the direction shown a and then in the direction shown b, and adjust to optimum.

4-10. GREEN ELECTRIC FOCUS ADJUSTMENT

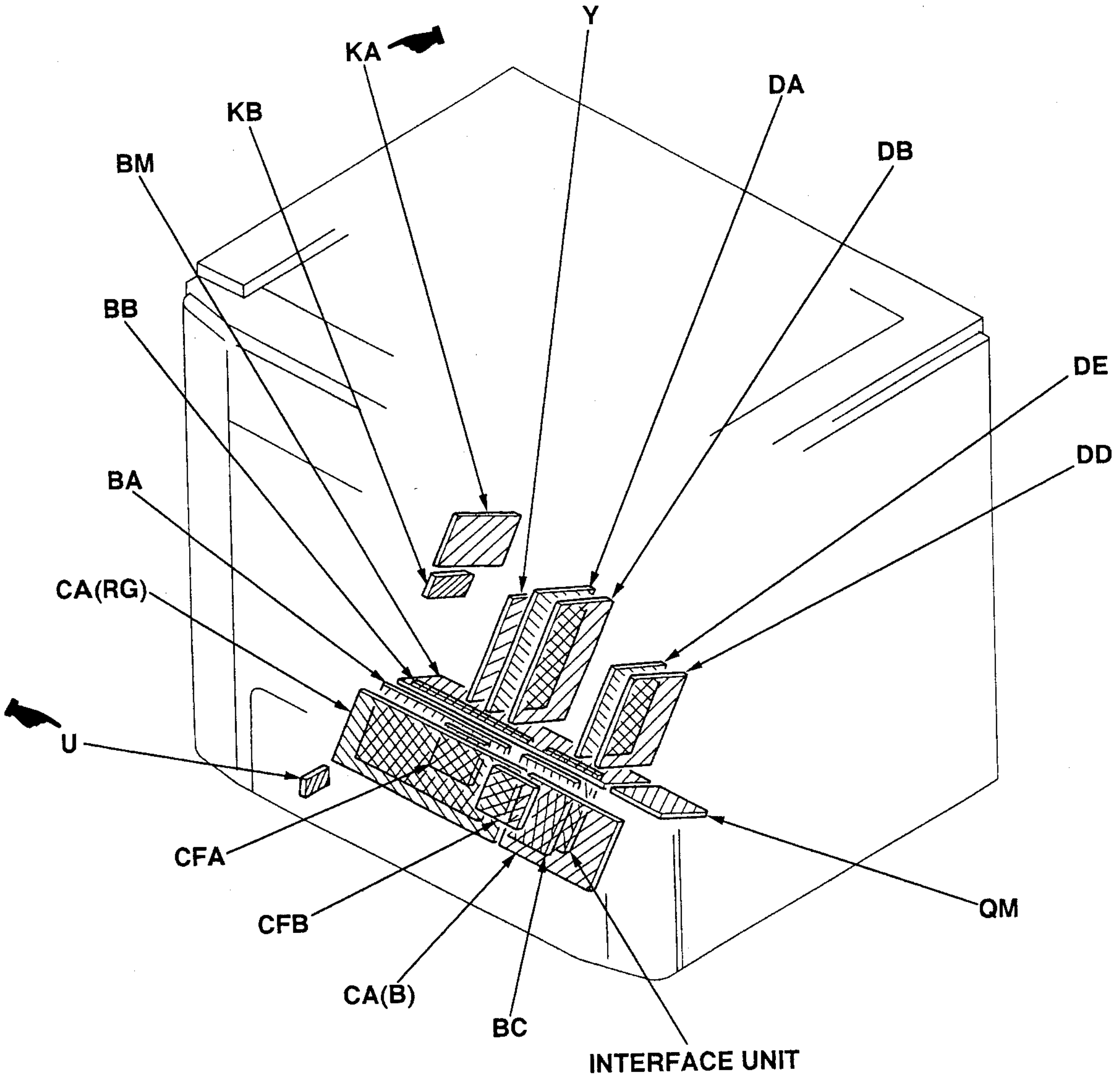
1. Use the commander to select an input A.(To set fH=33.4 kHz)
2. Press the TEST key continuously for five seconds, and press the ▲ key to set the service man mode. (Not required if already in the service man mode.)
3. Press the RESET key and set CONTR: 80, BRT: 50.
4. Press the CUT OFF R and B keys, and set to green (single color).
5. Rotate the GREEN volume of the focus pack, and adjust so that the H pattern is the clearest.

4-11. RED ELECTRIC FOCUS ADJUSTMENT

1. Press the CUT OFF G and B keys of the commander and set to red (single color).
2. Adjust as in the green electric focus adjustment.

SECTION 7
DIAGRAMS (See page 54)

7-1. CIRCUIT BOARD LOCATION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KA
DA
KB
DB
BM
BB
DE
DD
BA
CA(RG)
U
CFA
CFB
CA(B)
BC
INTERFACE UNIT
QM

SECTION 8
EXPLODED VIEWS (See page 202–206)

NOTE :
- Items with on part number and on description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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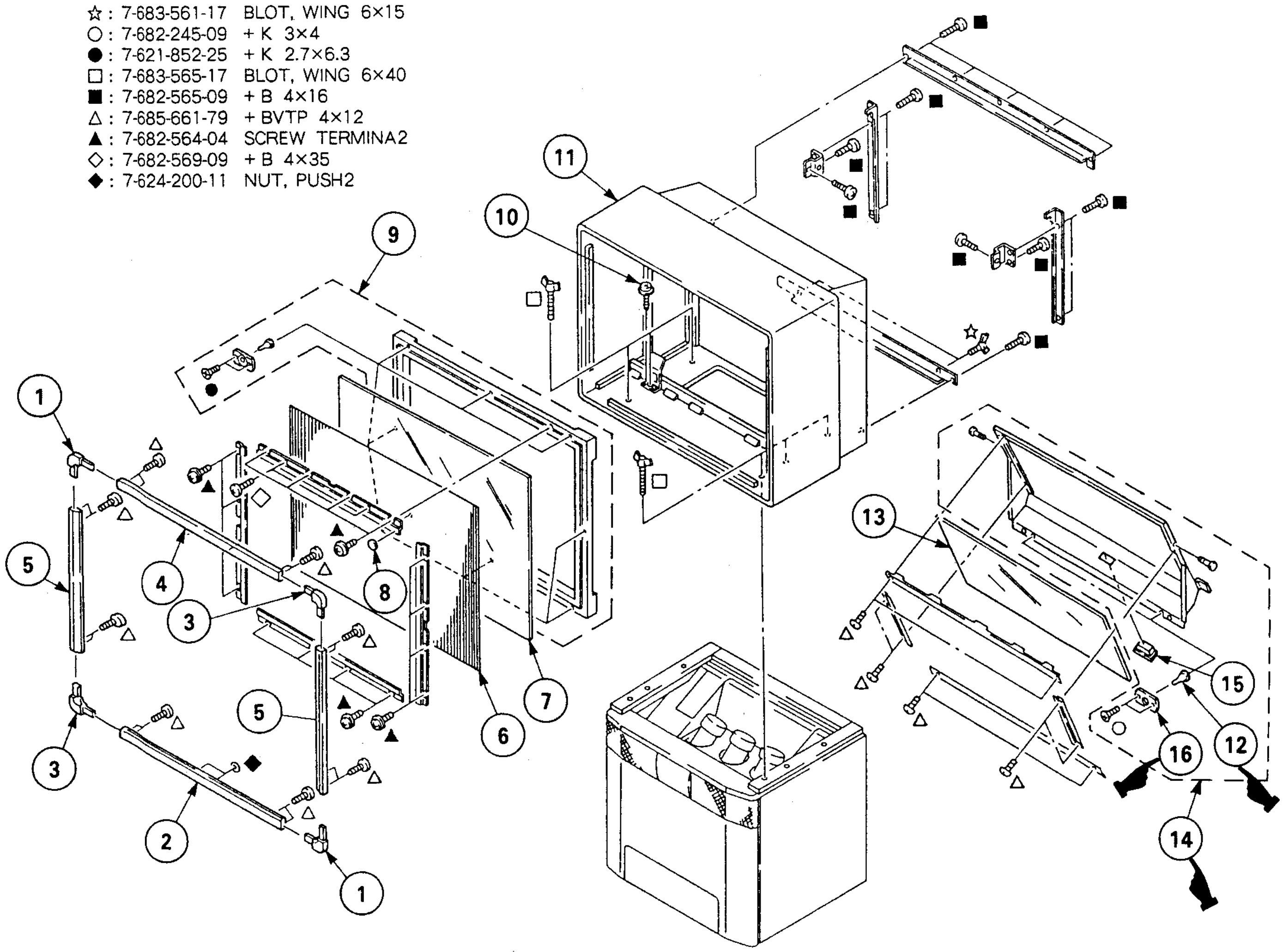
Ne les remplacer que par une piece portant le numero specifie.

8-1. CABINET (U) BLOCK

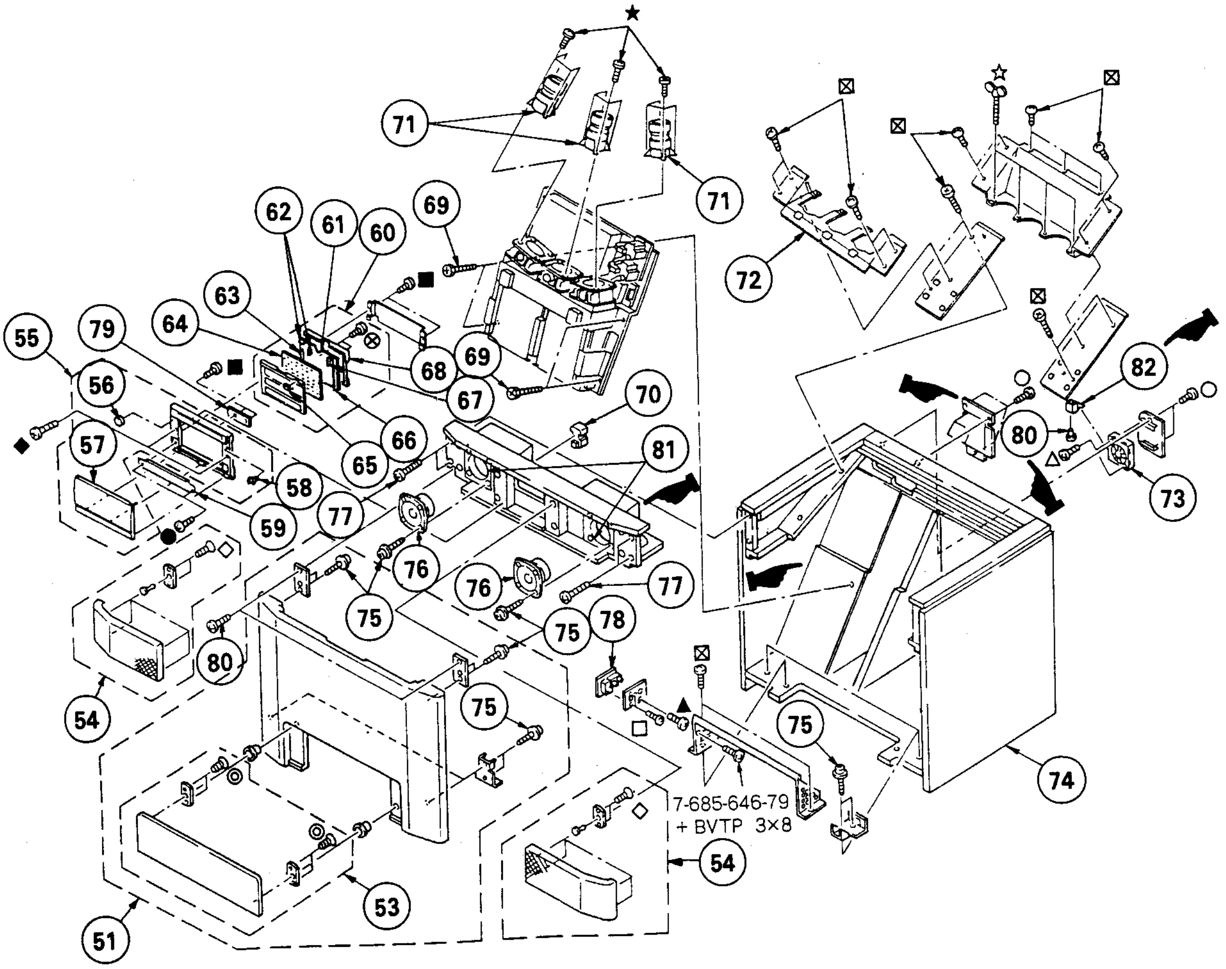
☆ : 7-683-561-17 BLOT, WING 6×15
○ : 7-682-245-09 + K 3×4
● : 7-621-852-25 + K 2.7×6.3
□ : 7-683-565-17 BLOT, WING 6×40
■ : 7-682-565-09 + B 4×16
△ : 7-685-661-79 + BVTP 4×12
▲ : 7-682-564-04 SCREW TERMINA2
◇ : 7-682-569-09 + B 4×35
◆ : 7-624-200-11 NUT, PUSH2



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	4-396-963-01	FRAME (L), SCREEN CORNER	
2	X-4029-035-1	FRAME (L) ASSY, SCREEN	
3	4-396-964-01	FRAME (R), SCREEN CORNER	
4	X-4395-551-1	FRAME (H.L) ASSY, SCREEN	
5	X-4395-553-1	FRAME (V) ASSY, SCREEN	
6	4-396-959-11	SCREEN (L)	
7	X-4029-162-1	SCREEN (F)	
8	2-270-660-00	MARKER (R)	
9	*X-4395-546-1	BRACE ASSY, SCREEN	
10	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
11	*X-4031-931-1	CABINET (U) ASSY	
12	4-838-452-01	STRIKE	
13	4-396-952-01	MIRROR	
14	*X-4031-930-1	COVER ASSY, MIRROR	12, 15, 16
15	4-313-702-91	HANDLE	
16	4-838-453-01	SUPPORT	

8-2. CABINET (L) BLOCK

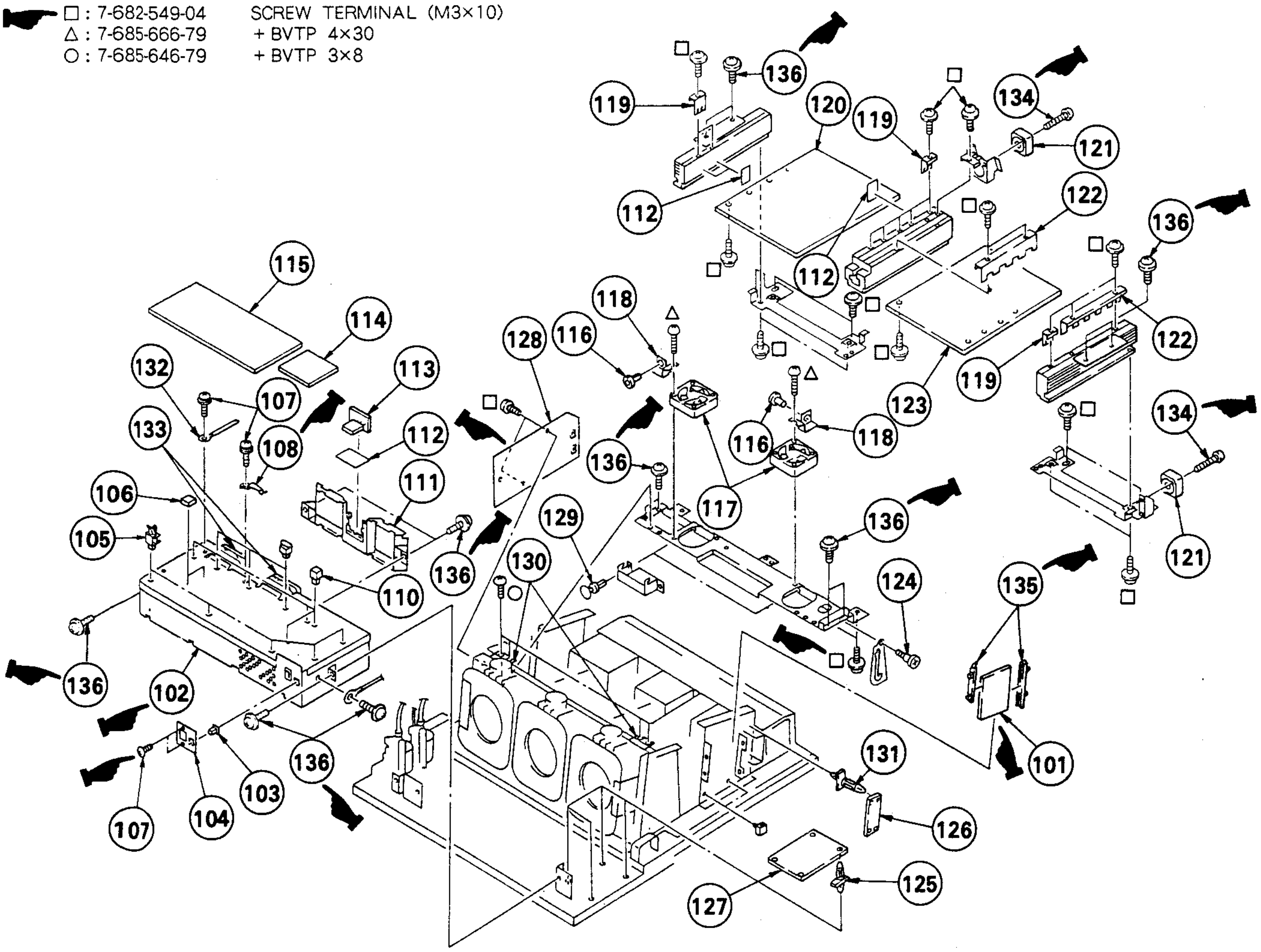
⊗ : 7-685-134-19 +P 2.6×8
☆ : 7-683-561-17 BOLT, WING 6×15
△ : 7-685-666-79 +BVTP 4×30
● : 7-682-550-09 +B 3×12
■ : 7-685-647-79 +BVTP 3×10
○ : 7-682-565-09 +B 4×16
□ : 7-621-775-00 +P 2.6×3
▲ : 7-685-147-19 +P 3×10
◇ : 7-685-248-19 +KTP 3×12
◆ : 7-682-570-09 +PSW 4×40
★ : 7-682-557-04 +B 5×14
◎ : 7-621-853-20 SCREW WOOD +K 3.1×10
☛ ⊠ : 7-685-663-79 +ITTP 4×16



REF. NO.	PART NO.	DESCRIPTION	REMARK
51	* X-4031-927-1	COVER ASSY, FRONT	53, 75
53	* X-4029-024-1	DOOR ASSY, FRONT	
54	X-4029-026-1	GRILLE ASSY, SPEAKER	
55	X-4031-926-1	HOLDER (F) ASSY, CONTROL PANEL	56-58
56	4-314-871-00	CUSHION	
57	4-396-994-01	DOOR, CONTROL	
58	4-392-036-01	CATCHER, PUSH	
59	* 4-396-950-01	COVER, SWITCH	
60	A-1499-936-A	PANEL ASSY, CONTROL	61-68
61	* A-1280-414-A	RC BOARD, COMPLETE	
62	* 1-631-493-11	RCD BOARD	
63	* 1-631-356-11	RCA BOARD	
64	4-395-509-01	SHEET, RUBBER	
65	4-395-501-01	KEY TOP	
66	* 1-631-357-11	RCB BOARD	
67	* 1-631-358-11	RCC BOARD	
68	4-395-508-01	CASE, LOWER	
69	4-396-260-11	BOLT, SOCKET HEXAGON	
70	3-701-983-00	BUSHING, AC CORD	
71	4-396-957-01	LENS (HD-116)	
72	4-396-989-02	ENCLOSURE (U.F)	
73	1-698-057-11	FAN, DC	
74	* X-4031-928-1	CABINET (L) ASSY	
75	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
76	1-503-917-11	SPEAKER	
77	* 3-703-051-51	BIND, M4	
78	* A-1373-237-A	U BOARD, COMPLETE	
79	* A-1390-102-A	N BOARD, COMPLETE	
☛ 80	* 4-034-118-01	HOLDER (A), SENSOR	
81	4-045-377-01	CUSHION, SP	
☛ 82	* 4-034-124-01	BRACKET (A), SENSOR	

8-3. ED BLOCK

☛ □ : 7-682-549-04 SCREW TERMINAL (M3×10)
△ : 7-685-666-79 +BVTP 4×30
○ : 7-685-646-79 +BVTP 3×8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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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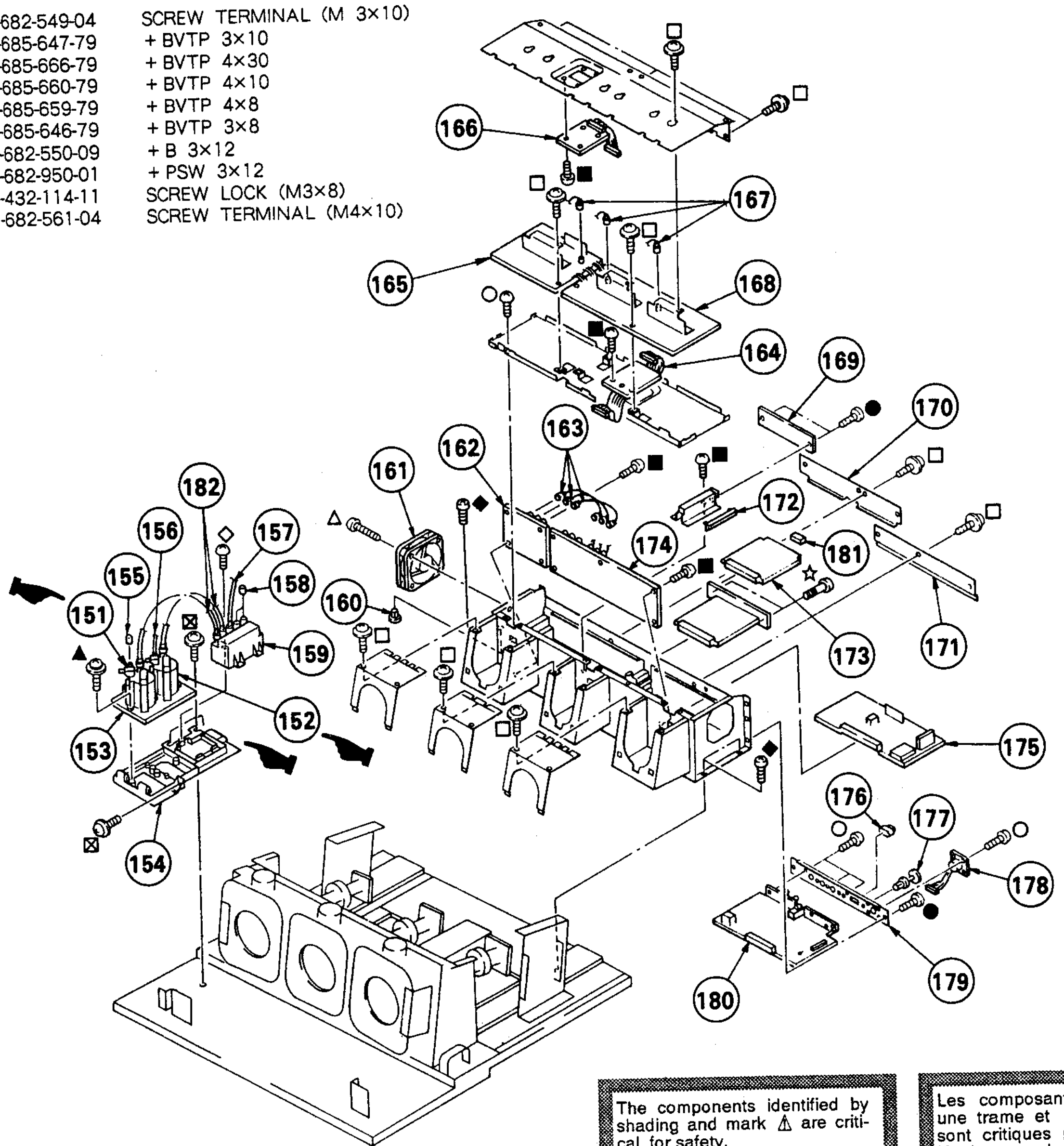
REF. NO.	PART NO.	DESCRIPTION	REMARK
☛ 101	* A-1380-473-A	KA BOARD, COMPLETE	
☛ 102	⚠ 1-413-934-11	REGULATOR, SWITCHING (SOPS-1047)	
103	4-362-811-00	BUTTON, MAIN POWER	
104	* 4-042-969-01	PLATE, POWER	
105	* 3-703-141-00	HOLDER, PCB	
106	* 4-398-732-01	CUSHION	
107	4-382-854-01	SCREW (M3×8), P, SW (+)	
☛ 108	* 4-043-154-01	HOLDER, IC	
110	* 3-701-903-11	HOLDER, PC BOARD	
111	* 4-042-902-01	DUCT, FAN	
112	4-393-406-01	SHEET (R), RADIATION	
113	* A-1190-196-A	PC BOARD, COMPLETE	
114	* A-1380-466-A	K BOARD, COMPLETE	
115	* A-1195-081-A	PA BOARD, COMPLETE	
116	* 4-034-118-01	HOLDER (A), SENSOR	
117	1-698-057-11	FAN, DC	
118	* 4-034-124-01	BRACKET (A), SENSOR	
119	* 4-395-528-01	HOLDER (C), TR	

REF. NO.	PART NO.	DESCRIPTION	REMARK
120	* A-1346-218-A	E BOARD, COMPLETE	
121	1-541-950-11	FAN, DC	
122	* 4-395-553-01	HOLDER (A), TR	
123	* A-1346-217-A	DC BOARD, COMPLETE	
124	3-671-135-00	SCREW, STEP	
125	* 3-703-353-07	SUPPORT, PC BOARD	
126	* A-1380-316-A	KB BOARD, COMPLETE	
127	* A-1240-970-A	F BOARD, COMPLETE	
128	* X-4395-575-1	PLATE ASSY, SHIELD	
129	4-374-303-01	RIVET, NYLON	
130	* 3-658-816-00	HINGE, FRONT	
131	* 3-703-353-03	SUPPORT, PC BOARD	
132	* 4-908-882-01	CLAMP	
133	1-698-331-11	FAN, DC	
☛ 134	4-382-854-31	SCREW (M3×14), P, SW (+)	
☛ 135	* 4-360-309-11	SUPPORT, PC BOARD	
☛ 136	3-701-810-91	SCREW, TERMINAL	

8-4. C SHIELD BLOCK

□ : 7-682-549-04 SCREW TERMINAL (M 3×10)
■ : 7-685-647-79 +BVTP 3×10
△ : 7-685-666-79 +BVTP 4×30
◇ : 7-685-660-79 +BVTP 4×10
◆ : 7-685-659-79 +BVTP 4×8
○ : 7-685-646-79 +BVTP 3×8
● : 7-682-550-09 +B 3×12
▲ : 7-682-950-01 +PSW 3×12
☆ : 7-432-114-11 SCREW LOCK (M3×8)
☒ : 7-682-561-04 SCREW TERMINAL (M4×10)



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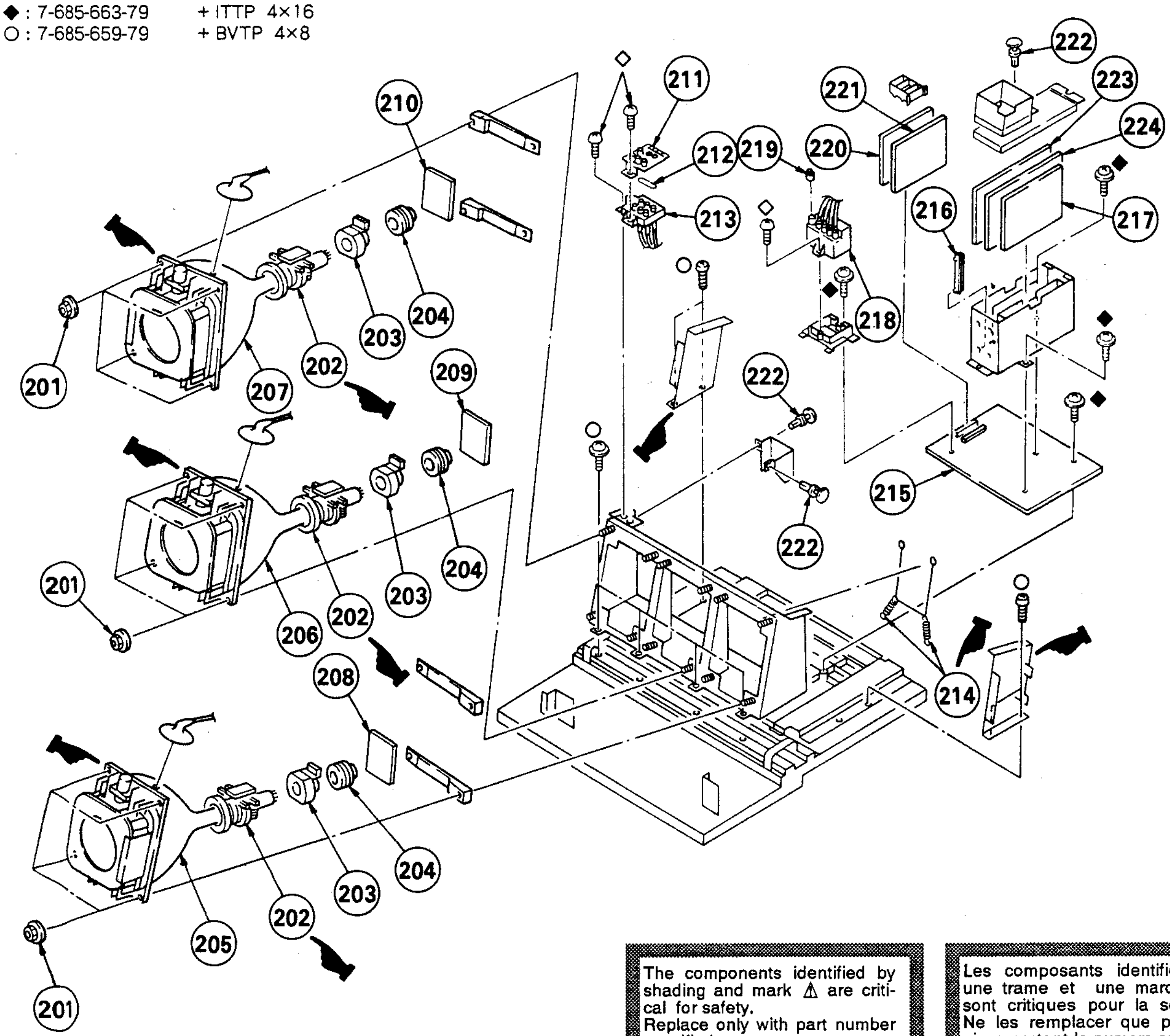
REF. NO.	PART NO.	DESCRIPTION	REMARK
151	⚠1-453-160-11	TRANSFORMER ASSY, FLYBACK (NX-3030B4)	
152	⚠1-453-160-11	TRANSFORMER ASSY, FLYBACK (NX-3030B4)	
153	* A-1190-195-A	PB BOARD, COMPLETE	
154	* 4-043-149-01	BRACKET, HV	
155	4-042-892-01	CAP, MV	
156	⚠1-900-086-01	LEAD ASSY, HIGH-VOLTAGE	
157	⚠1-559-865-31	LEAD ASSY, HIGH-VOLTAGE	
158	4-373-137-01	CAP (Z), RUBBER	
159	⚠1-453-108-31	DC BLOCK, HIGH-VOLTAGE	
160	* 4-034-118-01	HOLDER (A), SENSOR	
161	1-698-057-11	FAN, DC	
162	* A-1270-304-A	QM BOARD, COMPLETE	
163	* 1-575-091-11	CABLE, P-P	
164	* A-1331-163-A	CFA BOARD, COMPLETE	
165	* A-1335-027-A	CA (B) BOARD, COMPLETE	
166	* A-1331-162-A	CFB BOARD, COMPLETE	
167	* 1-555-110-00	CABLE, P-P	
168	* A-1335-026-A	CA (RG) BOARD, COMPLETE	
169	* 4-395-530-01	PLATE (Q)	
170	* 4-395-558-01	PLATE (Z)	
171	* 4-395-559-11	PLATE (B)	
172	* 4-360-309-11	SUPPORT, PC BOARD	
173	* A-1130-978-A	BC BOARD, COMPLETE	
174	* A-1130-976-A	BM BOARD, COMPLETE	
175	* A-1135-692-A	BA BOARD, COMPLETE	
176	* 3-673-948-11	CAP, DUST	
177	4-374-303-01	RIVET, NYLON	
178	1-575-092-11	CONNECTOR ASSY, MULTI 14P	
179	4-395-583-01	PANEL (B), CONNECTOR	
180	* A-1135-789-A	BB BOARD, COMPLETE	
181	* 4-353-708-00	HOOK, FINGER	
182	⚠1-559-865-41	LEAD ASSY, HIGH-VOLTAGE	

8-5. CRT BLOCK

◇ : 7-685-660-79 + BVTP 4×10
◆ : 7-685-663-79 + ITTP 4×16
○ : 7-685-659-79 + BVTP 4×8



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REF. NO.	PART NO.	DESCRIPTION	REMARK
201	4-304-511-00	NUT (M5), FLANGE	
202	⚠1-451-355-12	DEFLECTION YOKE (Y636PJ)	
203	⚠1-452-730-11	NECK ASSEMBLY (NA-3613)	
204	⚠1-452-429-31	NECK ASSY, CRT (NA366)	
205	⚠8-736-062-05	PICTURE TUBE 07MSJ (R) (SD-235)	
206	⚠8-736-060-05	PICTURE TUBE 07MSJ (G) (SD-235)	
207	⚠8-736-061-05	PICTURE TUBE 07MSJ (B) (SD-235)	
208	* A-1331-324-A	CBR BOARD, COMPLETE	
209	* A-1331-325-A	CBG BOARD, COMPLETE	
210	* A-1331-326-A	CBB BOARD, COMPLETE	
211	4-031-481-01	COVER, FOCUS PACK	
212	4-037-163-01	LABEL, SCREEN	
213	1-241-744-21	RESISTOR ASSY (HIGH-VOLTAGE)	
214	4-303-774-××	SPRING	
215	* A-1341-775-A	DM BOARD, COMPLETE	
216	* 4-360-309-11	SUPPORT, PC BOARD	
217	* A-1394-325-B	Y BOARD, COMPLETE	
218	⚠1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
219	4-373-137-01	CAP (Z), RUBBER	
220	* A-1346-022-A	DD BOARD, COMPLETE	
221	* A-1346-208-A	DE BOARD, COMPLETE	
222	4-374-303-01	RIVET, NYLON	
223	* A-1346-189-A	DB BOARD, COMPLETE	
224	* A-1346-191-A	DA BOARD, COMPLETE	

Sony Corporation
B&I Systems Company

English
94LJ022087-1
Printed in Japan

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